DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO

DEPARTMENT OF THE ARMY PERMIT

PERMITTEE: Mr. Charlie Fielder, District 1, California Department of Transportation

PERMIT NO.: 1991-194740N

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

A. **PROJECT DESCRIPTION:** Construct a new segment of U.S. Highway 101 (U.S. 101) that will bypass the City of Willits in Mendocino County, California. The proposed project entails construction of a four-lane freeway segment of U.S. 101. Each lane shall be 12 feet wide with a 22-foot median separating the northbound and southbound lanes. The proposed freeway shall bypass the City of Willits with several bridges spanning creeks and local roads, a viaduct spanning the floodway, and interchanges on either end of the bypass. The interchange ramps shall be single-lane. The project shall be constructed as depicted in drawings prepared by Caltrans, dated February 1, 2012, titled "Caltrans 03-Design East, District 01, County Mendocino, Route 101, Kilometer Post Total Project R69.4/R78.9: Figures L-1A through L-36A."

The project shall directly affect a total of 82.05 acres of wetlands and other waters of the United States, (streams such as: Haehl, Baechtel, Broaddus, Mill, Upp, and Outlet Creeks and their related tributaries), of which 51.07 acres shall be permanently filled and 30.98 acres shall be temporarily filled during project construction, (as depicted in drawings prepared by Caltrans dated February 1, 2012 and titled: Figures B-1 through B-60 of Appendix B, Willits Bypass Sensitive Biological Resources Impact Maps, of the "Willits Bypass Project Mitigation and Monitoring Proposal").

The project shall be constructed in two phases: Phase I of the project shall be the two southbound lanes. However, Phase I shall function as an interim facility upon which northbound and southbound traffic shall travel until construction of Phase II. Upon completion of both phases, traffic shall be separated via a median and two viaducts.

The Phase I interim facility shall be comprised of two lanes and have wider roadway shoulders to safely accommodate the travelling public. Also, the Phase I (interim facility) viaduct shall be one foot wider than the future Phase II viaduct. This design feature shall be to allow safe passage of northbound and southbound traffic on a singular viaduct until construction of the Phase II viaduct to separate northbound traffic from southbound.

Phase I shall include constructing all four north and southbound lanes from the southern end of the project at Post Mile 43.1 on U.S. 101 to Post Mile 45.6. Phase I shall also include the construction of a southern interchange at Post Mile 43.7 near Haehl Creek, and a northern interchange that includes a roundabout-type intersection with local roads at Post Mile 48.2 near Upp Creek.

Phase I construction shall permanently fill 42.76 acres of waters of the United States and temporarily fill 22.91 acres of waters of the United States.

Phase II shall consist of construction of the two north-bound lanes. Phase II construction would permanently fill 8.31 acres of waters of the United States and temporarily fill 8.07 acres of waters of the United States.

Note: "temporary fill material" is a fill discharge that would be in place for the duration of active construction (likely up to 5 years).

PROJECT LOCATION: City of Willits, Mendocino County, California

PERMIT CONDITIONS:

GENERAL CONDITIONS:

1. The time limit for completing the work authorized ends on December 31, 2022. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

7. You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

SPECIAL CONDITIONS:

1. The Permittee shall mitigate for permanent impacts to 42.76 acres and temporary impacts to 22.91 acres of waters of the U. S. associated with Phase I of the Project, through restoration (rehabilitation) of 344.63 acres and establishment of 49.58 acres of wetlands and the rehabilitation of 19.03 acres of other waters of the U.S. as described in the final mitigation plan: "Willits Bypass Project Mitigation and Monitoring Proposal" (which includes Appendices A, C, D, E, F, G, H, I, J, K, L, M, and N), dated January 2012, (and also includes Appendix B, dated February 1, 2012), prepared by Caltrans (MMP). The Permittee shall fully implement this final mitigation plan concurrently with impacts to waters of the U.S. Delays in the mitigation implementation schedule (Figure 7-1 of the final mitigation plan) may result in the requirement of additional mitigation to compensate for the temporal loss. According to the final mitigation plan, responsible parties would be as follows: a) Implementation: Caltrans; b) Performance: Caltrans; c) Long-term management: Mendocino County Resource Conservation District. The

Permittee retains ultimate legal responsibility for meeting the requirements of the final mitigation plan. Detailed mitigation objectives, performance standards, and monitoring requirements are described in the above final mitigation plan.

2. The MMP documents are not complete without this permit and its accompanying special conditions. A notation to this effect shall be annotated on the cover and title page of the MMP prior to distribution. This permit, including the special conditions, shall be attached to all distributed copies of the MMP.

3. A performance bond, other Corps-approved financial assurance mechanism, or alternate mechanism, such as a formal, documented commitment from Caltrans or a public authority, must be in place within ninety (90) days following permit issuance or prior to commencing the permit activity, whichever is sooner. It must ensure a high level of confidence that the compensatory mitigation will be performed and maintained, in accordance with 33 C.F.R. § 332.3(n) and the Institute for Water Resources White Paper, *Implementing Financial Assurance for Mitigation Project Success*, June 2011.

4. The fee title holder and the conservation easement holder shall not be the same entity.

5. The Permittee shall record a Conservation Easement (CE) in a form approved by the Corps, which shall run with each off-site mitigation parcel, obligating the Permittee, its successors and assigns to protect and maintain the mitigation areas (parcels indentified in Tables 6-2, 6-4, and 6-5 of the MMP, and as shown in Figures L-1 through L-34 of Appendix E ("Design plans for Offsite Mitigation") dated February 1, 2012) as natural, unmanaged, wetland and other waters in perpetuity. Each CE will identify that the mitigation parcels shall not have any agricultural or management activities that may reduce or diminish successional vegetation development, without prior approval from USACE. Each CE must include a 3rd party easement holder qualified to hold easements pursuant to California Civil Code § 815.3 and Government Code § 65965. Each CE must also identify the Corps as a 3rd party beneficiary. The Permittee must provide monies in the form of an endowment (as specified in Chapter 13 of the final mitigation plan) for the purposes of fulfilling the 3rd party easement holder's responsibilities under the CE. Each CE shall abide by and fulfill all requirements of the "Willits Bypass Project Mitigation and Monitoring Proposal," dated January 2012, and prepared by Caltrans (Willits Bypass Project MMP). Review of Conservation Easement will include review of title reports all off-site mitigation parcels with maps depicting any recorded easements. Conservation Easements shall have as an exhibit the Willits Bypass Project MMP, and reference this document's adaptive management plan and long-term management plan. Each CE shall preclude establishment of fuel modification zones, paved public trails, drainage facilities, walls, maintenance access roads and/or future easements, except as provided in the Project Description (described in this permit). Further, to the extent practicable, any such facilities outside the CE shall be sited to minimize indirect impacts on the avoided, created, restored and enhanced wetland and non-wetland waters of the U.S. Prior to its execution and within six months of issuance of this permit, the Permittee shall submit drafts of each CE to the Corps for review. The Permittee shall not execute or record any CE until it has received written approval from the Corps. No later than 30 calendar days after receiving Corps approval of the final draft CE's, the CE's shall be executed and recorded and a recorded copy furnished to the Corps.

6. Any proposed changes to the final mitigation plan, the Willits Bypass Project MMP, including changes to the performance standards and any proposed adaptive management actions, shall be submited in writing to the Corps at least 60 days prior to implementation. Caltrans shall not implement the proposed changes prior to receiving written approval from the Corps.

7. This permit may require modification if the final, revised project plans and/or impact maps differ from those used to develop the temporary and permanent impact assessments for the MMP dated March 15, 2011. Prior to construction of the project, the permittee shall provide the Corps with the final revised project plans, corresponding maps showing final project footprint and location of each temporary and permanent impact to wetlands and other waters, and a detailed spreadsheet itemizing the areal extent of each temporary and permanent impact. The final, revised project plans and corresponding impact maps shall be reviewed and approved by the Corps in writing. Any temporary or permanent impacts that occur on areas not evaluated for the presence of wetlands and/or waters of the U.S. in the initial development of the impact assessments for the MMP shall require verified jurisdictional

determination and an assessment of those impacts. For example, impacts occurring on the parcels Garman (APN038-020-21), Burton (APN 038-020-09), Shrabel (APN 038-020-46), (Pellegri (APN 038-040-07), Lamb (APN 038-040-05), and King (APN 038-040-08).

8. Within 45 calendar days of installation of each mitigation area, the Permittee shall submit to the Corps a memo indicating the following:

A)Date(s) all mitigation was installed and monitoring was initiated;
B) Schedule for future mitigation monitoring, implementation and reporting pursuant to final, Corps-approved mitigation plan;
C) Summary of compliance status with each special condition of this permit (including any noncompliance that previously occurred or is currently occurring and corrective actions proposed to achieve compliance);
D) One copy of "as built" drawings for all mitigation sites (all sheets must be signed, dated, to-scale, and no larger than 11 x 17 inches)

9. Performance Standards must be met each year for each mitigation action on each mitigation unit. The Permittee shall submit annual mitigation monitoring reports to the Corps by December 31 each year. Annual sampling documentation, as part of monitoring reports, shall include maps showing locations of sampling points/transects and photos representative of sampling locations. Reports should provide quantitative data and other information necessary for the Corps to verify the site conditions and whether the compensatory mitigation project is meeting its performance standards. Such information includes, for each site, field data forms (raw data) and summary tables of the following: relative cover by wetland plant species, percent change in relative cover by wetland plant species over baseline conditions, relative cover of target native wetland plant species, percent change in relative cover of target native wetland plant species over baseline conditions, species richness (including a list of species), and absolute percent cover by invasive plants. If a performance standard is not met, Caltrans shall propose possible remedial actions for USACE review and approval.

10. For determining the mitigation treatment units and types of treatments, Caltrans shall submit the proposed Baseline Study required in the Willits Bypass Project Mitigation and Monitoring Proposal" (dated January 2012, and prepared by Caltrans), at least two months prior to its implementation for USACE review and approval in the winter of 2012. A site visit may be required for approval of the proposed Baseline Study.

11. For vegetation sampling of mitigation treatment units, the Permittee shall propose a sampling strategy for Corps to review and approve in writing at least three months prior to its anticipated implementation. On homogenous rehabilitation treatment areas, random sampling of vegetation is acceptable. On heterogeneous rehabilitation treatment areas, stratified random sampling or an equivalent is required. Vegetation sampling shall not commence until the Corps has approved the strategy in writing. The number and location of the transects will be sufficient to adequately represent the mitigation unit's plant species composition (measured by a species diminishing curve) and plant species distribution (i.e. percent cover).

12. Caltrans shall submit proposed hydroperiod reference sites and method of measurement of hydroperiod (ie. ground water measurement or surface ponding observation) of adjacent wetland areas for each off-site establishment (Group 1 and 2) at least three months prior to its implementation for Corps review and approval. For Group 2 wetland establishment areas, a ground water measurement well will be situated at the highest elevation of the established wetland area for each treatment area. A minimum of one well will be installed for every 2 acres of Group 2 establishment.

13. The footprint (total acreage) of the rehabilitation treatment areas are described in Table 6.4 of the MMP. If it is determined by the Corps that adjustments are required to treatment areas, the total wetland rehabilitation credit amount as stated in Table 6.4 (61.29 acres of credit) shall not decrease.

14. All measurements for percent cover of wetland species, targeted wetland species and native plant species (herbaceous and woody) shall be in relative percent cover. Measurement of invasive plant species shall be in absolute percent cover.

15. All references in the MMP for target species, target wetland species, and target hydrophytic species refer to the list of plant species found in Table 7.5 of the MMP.

16. The Permittee shall clearly mark all areas of Corps jurisdiction, and any associated riparian vegetation, that are not to be removed or otherwise adversely impacted during project implementation with cyclone-type fencing. Markers and/or barricades shall be clearly located to restrict access and ensure all movement of equipment and personnel will occur within the authorized construction/impact areas.

17. The Permittee shall disclose all proposed temporary impact areas, including temporary access routes and staging areas, located within wetlands and other waters of the U.S to the Corps a minimum of sixty (60) days prior to any project construction. All Phase I temporary impact areas shall have the temporary fill removed within 60 days following Phase I construction completion (by approximately the year 2016). All temporary impacts to waters of the U.S. must be restored to pre-construction conditions and still meet the definition of jurisdictional wetlands/waters of the U.S.

18. This Corps permit does not authorize you to take any threatened or endangered species, in particular the threatened northern spotted owl (*Strix occidentalis caurina*), Northern California steelhead (*Oncorhynchus mykiss*), Southern Oregon/Northern California coho salmon (*Oncorhynchus kisutch*), or California Coastal Chinook salmon (*Oncorhynchus tshawytscha*), or adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The USFWS and NMFS BOs (EA 01-262000 dated June 22, 2010, and #2011/06217 dated January 19, 2012, respectively) contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BOs. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BOs, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BOs, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS and NMFS are the appropriate authorities to determine compliance with the terms and conditions of their BOs and with the ESA.

19. The Permittee shall allow Corps representatives to inspect the authorized activities at any time deemed necessary to ensure compliance with permit terms and conditions.

20. The Permittee (Caltrans) is not authorized to commence fill or construction activities associated with Phase II of the Project until after the Corps has provided a written notice to proceed with Phase II. Design-level drawings for Phase II shall be submitted to the Corps a minimum of two years prior to the anticipated commencement of construction. In addition, a draft mitigation plan in accordance with the requirements of 33 CFR § 332.4(c) must be submitted to the Corps to address Phase II Project impacts. The draft submittal must allow two (2) years of development and review such that the final mitigation plan is developed prior to the proposed start of Phase II construction. The draft mitigation plan shall address the 8.31 acres of permanent and 8.07 acres of temporary impacts to waters of the U.S. associated with Phase II through restoration/establishment/enhancement of waters of the U.S. and shall ensure that there will not be a net loss of aquatic resource functions and services resulting from Phase II. The Phase II final mitigation plan will be submitted for public review and comment via a Public Notice, and the Permittee shall adequately respond to all comments prior to Corps approval of the plan. No work in waters of the U.S. associated with Phase II is authorized until the Permittee receives, in writing, Corps approval of the final mitigation plan and Corps acknowledgement of the receipt of the Phase II design-level drawings. The Permittee shall fully implement this Phase II final mitigation plan concurrently with, or prior to, Phase II impacts to waters of the U.S.

21. The Permittee shall disclose all proposed temporary impact areas, including temporary access routes and staging areas, located within wetlands and other waters of the U.S to the Corps a minimum of sixty (60) days prior to any project construction. All Phase II temporary impact areas shall have the temporary fill removed within 60 days

following Phase II construction completion. All temporary impacts to waters of the U.S. must be restored to pre-construction conditions and still meet the definition of jurisdictional wetlands/waters of the U.S.

22. Your responsibility to complete the required compensatory mitigation as set forth in Special Conditions 1 through 17, 20 and 21, will not be considered fulfilled until you have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers. Failure to fulfill your responsibility to fully compensate for impacts to 82.05 acres of waters of the U.S. will result in a requirement of additional compensatory mitigation, as determined by the Corps.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).
(X) Section 404 of the Clean Water Act (33 U.S.C. Section 1344).
( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. Section 1413).

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 C.F.R. § 325.7 or enforcement procedures such as those contained in 33 C.F.R. §§ 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 C.F.R. § 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Charles Fields — Feb 17, 2012

(PERMITTEE) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Torrey A. DiCiro — FEB 21, 2012

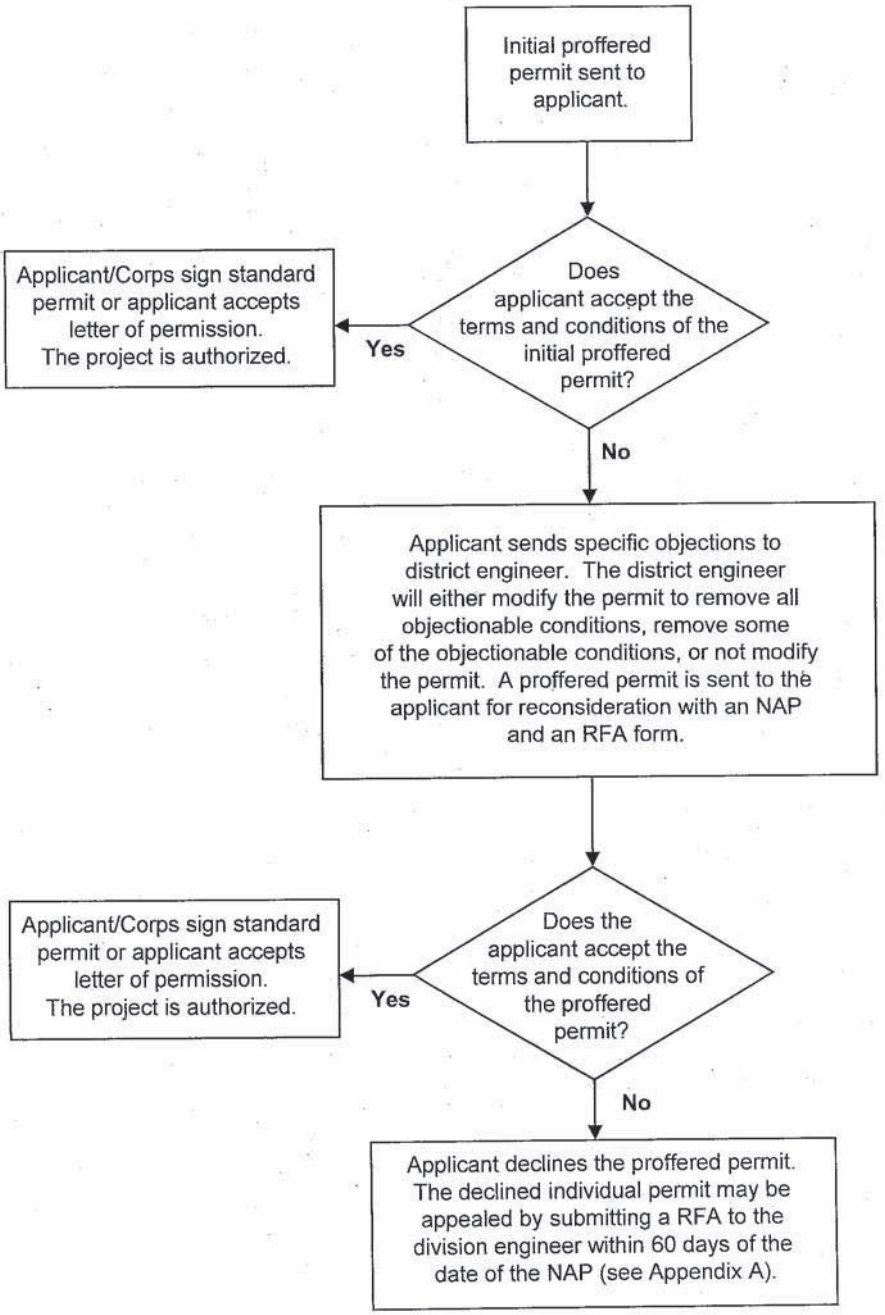
(DATE)

Torrey A. DiCiro, P.E., PMP
Lieutenant Colonel, U.S. Army
District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

Applicant Options with Initial Proffered Permit



Appendix B

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mr. Charlie Fielder, CALTRANS	File No. 1991-194740N	Date: 02-16-2012
Attached is:		See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT ENGINEER for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this Notice and return the Notice to the DISTRICT ENGINEER. Your objections must be received by the DISTRICT ENGINEER within 60 days of the date of this Notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your NOTICE, the DISTRICT ENGINEER will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the DISTRICT ENGINEER will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT ENGINEER for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this NOTICE and sending the NOTICE to the DIVISION ENGINEER. This Notice must be received by the DIVISION ENGINEER within 60 days of the date of this Notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this Notice sending the Notice to the DIVISION ENGINEER. This Notice must be received by the DVISION ENGINEER within 60 days of the date of this Notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this Notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this Notice and sending the Notice to the DIVISION ENGINEER. This Notice must be received by the DIVISION ENGINEER within 60 days of the date of this Notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: Laurie A. Monarres, Chief, North Branch, Regulatory Division U.S. Army Corps of Engineers, San Francisco District 1455 Market Street, 16th Floor, Attn: CESPN-R-N San Francisco, CA 94103-1398 Tel. (415) 503-6774 FAX (415) 503-6690	If you only have questions regarding the appeal process you may also contact: Thomas J. Cavanaugh, Appeal Review Officer U.S. Army Corps of Engineers, South Pacific Division 1455 Market Street, 20th Floor, Attn: CESPD-PDS-O San Francisco, CA 94103-1399 Tel. (415) 503-6574 FAX (415) 503-6646

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

Notice of Determination

TO: ☒ Office of Planning and Research

For U.S. Mail:
P.O. Box 3044
Sacramento, CA 95812-3044

Street Address:
1400 Tenth Street
Sacramento, CA 95814

FROM: Department of Fish and Game
Northern Region
601 Locust Street
Redding, CA 96001
Contact: Craig Martz
Phone: (530) 225-2281

LEAD AGENCY (if different from above):
Department of Transportation (Caltrans)
2800 Gateway Oaks Drive, #100
Sacramento, CA 95833
Contact: Jeremy Ketchum
Phone: (916) 274-0621

SUBJECT: Filing of Notice of Determination pursuant to § 21108 of the Public Resources Code

State Clearinghouse Number: 1990030006

Project Title: Lake or Streambed Alteration Agreement No. 1600-2010-0044-R1 for the Willits Bypass Project

Project Location: U.S. Highway 101 from Post Mile R43.1, approximately 2.0 miles south of Willits, to Post Mile R49.0, approximately 1.9 miles south of Reynolds Highway, Mendocino County; T18N, R13W, Mt. Diablo Base and Meridian.

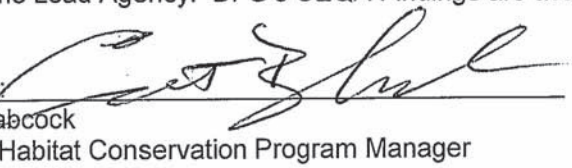
Project Description: The Project proposes to construct a new four-lane freeway bypass to the east of the City of Willits, with crossings of Haehl, Baechtel, Broaddus, Mill, Upp, and Outlet Creeks, tributary to the Eel River, Mendocino County.

This is to advise that the Department of Fish and Game (DFG), acting as ☐ **the lead agency /** ☒ **a responsible agency** approved the above-described project on the date signed below and has made the following determinations regarding the above described project:

1. The project ☐ **will /** ☒ **will not** have a significant effect on the environment. (This determination is limited to effects within DFG's jurisdiction when DFG acts as a responsible agency.)
2. ☒ **An environmental impact report /** ☐ **A negative declaration /** ☐ **A timber harvesting plan** was prepared for this project pursuant to CEQA.
3. Mitigation measures ☒ **were /** ☐ **were not** made a condition of DFG's approval of the project.
4. A Statement of Overriding Considerations ☐ **was /** ☒ **was not** adopted by DFG for this project.
5. Findings ☐ **were /** ☒ **were not** made by DFG pursuant to Public Resources Code § 21081(a). DFG did, however, adopt findings to document its compliance with CEQA.
6. Compliance with the environmental filing fee requirement at Fish and Game Code § 711.4 (check one):
   - ☐ Payment is submitted with this notice.
   - ☒ A copy of a receipt showing prior payment is on file with DFG.
   - ☐ A copy of the CEQA Filing Fee No Effect Determination Form signed by DFG is attached to this notice.

☐ Lead Agency certification: DFG, as Lead Agency, has made the final EIR with comments and responses and record of project approval, or the Negative Declaration, available to the General Public at the DFG office identified above.

☒ Responsible Agency statement: The final EIR, Negative Declaration, or THP that was prepared by the Lead Agency for this project is available to the General Public at the office location listed above for the Lead Agency. DFG's CEQA Findings are available at the DFG office identified above.

Signed:  Date: 6/29/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

Date Received for filing at OPR:

CALIFORNIA DEPARTMENT OF FISH AND GAME
CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS FOR
LAKE OR STREAMBED ALTERATION AGREEMENT No. 1600-2010-0044-R1

Introduction

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, *et seq.*) and the State CEQA Guidelines (Guidelines) (Section 15000, *et seq.*, Title 14, California Code of Regulations) require that no public agency shall approve or carry out a project for which an Environmental Impact Report (EIR) has been completed that identifies one or more significant effects, unless the agency makes the following finding as to each significant effect:

Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

As the lead agency for the project, the Department of Transportation (Caltrans) certified the EIR for the Project on **December 15, 2006**. A Supplemental EIR (SEIR) was certified by the lead agency on **May 19, 2010**. Caltrans found that the Project will not result in significant environmental effects with the mitigation measures required in, or incorporated into the Project.

The California Department of Fish and Game (DFG) is entering into Lake or Streambed Alteration Agreement (Agreement) **No. 1600-2010-0044-R1** with **Mr. Dave Kelley, representing Caltrans**. The project will affect portions of **Haehl, Baechtel, Broaddus, Mill, Upp, and Outlet Creeks, Mendocino County, T18n, R13W, Mount Diablo Base and Meridian**.

Because DFG is issuing the Agreement, it is a Responsible Agency under CEQA for the Project. As a CEQA Responsible Agency, DFG is required by Guidelines Section 15096 to review the environmental document certified by the Lead Agency approving the projects or activities addressed in the Agreement and to make certain findings concerning a project's potential to cause significant, adverse environmental effects. However, when considering alternatives and mitigation measures approved by the Lead Agency, a Responsible Agency is more limited than the Lead Agency. When issuing the Agreement, DFG is responsible only for ensuring that the direct or indirect environmental effects of activities addressed in the Agreement are adequately mitigated or avoided. Consequently, the findings adopted or independently made by DFG with respect to an Agreement's activities are more limited than the findings of the Lead Agency funding, approving, or carrying out the project activities addressed in such Agreements.

Findings

DFG has considered the EIR and SEIR certified by Caltrans. DFG has independently concluded that the Agreement should be issued under the terms and conditions specified therein. In this regard, DFG hereby adopts any findings of Caltrans as set forth in the EIR and SEIR and record of project approval, insofar as those findings pertain to the project's impacts on biological resources.

Signed: _____ Date: 6/29/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

CALIFORNIA DEPARTMENT OF FISH AND GAME
NORTHERN REGION
601 LOCUST STREET
REDDING, CA 96001

LAKE or STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2010-0044-R1
Haehl, Baechtel, Broaddus, Mill, Upp and Outlet Creeks, and
Unnamed Tributaries Thereto

CALIFORNIA DEPARTMENT OF TRANSPORTATION
WILLITS BYPASS PROJECT

This Lake or Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and the California Department of Transportation (Permittee) as represented by Mr. Dave Kelley.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on March 1, 2010, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The Willits Bypass Project (hereafter, the Project) is located near the City of Willits in Little Lake Valley, Mendocino County, California. The Project will construct a new freeway alignment to the east of Willits. The southern end of the new alignment is located at Post Mile (PM) R43.1 approximately 2.0 miles south of Willits, 39.371887, -123.321514. The northern end of the Project is located at PM R49.0, approximately 1.9 miles south of Reynolds Highway, 39.437511, -123.356766. The Project site is bounded by the City of Willits to the west and the Little Lake Valley to the east, on the Laughlin Range and Willits US Geological Survey (USGS) 7.5 minute quadrangles, Humboldt Base and Meridian.

PROJECT DESCRIPTION

The Project consists of a four-lane freeway bypass crossing the Little Lake Valley east of the City of Willits. The facility will maintain a minimum design speed of 68 miles per hour and will feature a 45.3-foot median separating the northbound and southbound lanes. Each lane will be 12 feet wide. The inside shoulder width (nearest the median) will be 5 feet, while the outside shoulder width will be 10 feet. The Project will begin approximately 2.0 miles south of Willits, where the existing four-lane freeway becomes a two-lane highway, and will continue north, rejoining the existing two-lane highway about 1.3 miles north of the Willits city limits. The overall length of the bypass will be approximately 5.8 miles, starting near PM R43.1 and ending near R49.0.

The bypass alignment will diverge from existing U.S. 101 at the new Haehl Creek interchange and continue northwesterly on an embankment constructed with excess fill from a previous freeway project. At the crossing over Center Valley Road, the roadway embankment will be replaced by a floodway viaduct, approximately 6,000 feet long. The viaduct structure will span the regulatory floodway, roughly paralleling the east bank of Baechtel Creek until it crosses the creek at the confluence with Broaddus Creek east of the Willits Waste Water Treatment Plant (WWTP). The bypass will continue on viaduct as it curves to the west and crosses Mill Creek. From a point approximately 600 feet west of the Mill Creek crossing, the facility will continue northwest on fill, bridging the Northwestern Pacific Railway (NWPRR) right-of-way before rejoining the existing alignment of U.S. 101 at the new Quail Meadows interchange.

Funding constraints require that the Project be constructed in two phases. Phase 1 consists of the two interchanges and the two southbound lanes which will be operated as a two-lane bypass (one lane in each direction). Construction of Phase 1 is expected to take four years to complete. As funding allows in Phase 1, Caltrans intends to construct as much of the four-lane embankment as possible to help facilitate the construction of Phase 2. The environmental study limits encompass the full four-lane facility and right-of-way purchased in Phase 1 will satisfy the requirements of the ultimate, four-lane, access-controlled freeway. Although only Phase 1 will be constructed at this time, Caltrans will implement mitigation for the biological resource impacts of the full four-lane facility. Funding for the second phase has not yet been identified. The additional funding necessary to construct Phase 2 will likely come from a combination of federal, state and local sources.

Construction of the Project will require excavation and placement of up to 1.4 million cubic yards of fill materiall for roadway embankment; removal of native wetland, riparian and upland vegetation; construction of temporary access roads and haul roads; construction of temporary and permanent stream crossings; removal of existing culverts on Haehl and Upp Creeks that currently impede the passage of anadromous salmonids; reconstructing the longitudinal profile of these stream reaches to provide improved fish passage; installing rock slope protection (RSP) and/or other bank stabilization measures to protect structures; dewatering of work areas in wetlands and within stream

channels for construction of permanent bridge and viaduct piers; installation of sheet piles, temporary H piles, and permanent un-filled pipe piles using vibratory and percussive hammers; and installation of wick drains to provide a stable foundation for embankment fills. In addition to erosion control and revegetation of temporary disturbance areas within the right-of-way, the Project also includes compensatory restoration, enhancement, and preservation activities on a minimum of 1,910 acres of off-site mitigation lands. An optional proposed borrow site at Oil Well Hill, located on the east side of U.S. 101 approximately 0.85-mile north of the intersection of Reynolds Highway and U.S. 101 has been designated as a source of fill material for the Project.

All work shall be in accordance with submitted plans and diagrams and any subsequent revisions approved by the DFG in writing. Specific work includes:

Interchanges

Two interchanges will be constructed for the project. The Haehl Creek interchange will be located at the south end of the project near Haehl Creek and connect the existing highway into Willits with the new facility. The Quail Meadows interchange will be located near the north end of Little Lake Valley and connect the new facility to the existing highway north of Willits. Interchange ramps will be single-lane.

Bridges and Structures

The bypass will cross creeks, riparian corridors, streets, and railroad rights-of-way using 22 bridges. Three retaining walls will be built. The following structures will be constructed with this project:

Six bridges in the Haehl Creek interchange area, one for each of the following:

- Northbound freeway lanes separation over State Route (SR) 20
- Southbound freeway lanes separation over SR 20
- Southbound off-ramp over Haehl Creek
- Northbound on-ramp over Haehl Creek
- Northbound freeway lanes over Haehl Creek
- Southbound freeway lanes over Haehl Creek

Two retaining walls in the Haehl Creek interchange area adjacent to Haehl Creek:1) East side of northbound lanes and 2) West side of northbound on-ramp

Two bridges to cross East Hill Road, including 1) one bridge for the southbound roadway lanes (Phase 1) and 2) one bridge for the northbound roadway lanes (Phase 2)

Two bridges to cross the middle reach of Haehl Creek south of Shell Lane, including one bridge for the southbound roadway lanes (Phase 1) and one bridge for the northbound roadway lanes (Phase 2).

One retaining wall on the west side of the southbound roadway lanes just south of Center Valley Road.

Two viaduct structures to span the floodway:

- Southbound (Phase 1)
- Northbound (Phase 2)

Two bridges to cross over the NWPRR tracks in the Quail Meadows interchange area, including one for the southbound roadway lanes (Phase 1) and one for the northbound roadway lanes (Phase 2).

Two bridges to cross the new connector road to existing U.S. 101 in the Quail Meadows interchange area, including one for the southbound roadway lanes (Phase 1) and one for the northbound roadway lanes (Phase 2).

Six bridges to cross Upp Creek directly north of the Quail Meadows interchange, one for each of the following:

- Southbound roadway lanes (Phase 1)
- Northbound roadway lanes (Phase 2)
- Northbound on-ramp (Phase 1)
- Northbound on-ramp (Phase 2)
- Southbound off-ramp
- Roundabout local intersection

Note that the northbound on ramp bridge constructed in Phase 1 would be replaced in Phase 2 by a different bridge.

Viaduct

Because the proposed alignment encroaches upon the 100-year floodplain, the design includes two elevated structures, which make up the floodway viaduct. The purpose of this design feature is to span the floodway. The final floodplain evaluation report concludes that project will not increase the base flood elevation of the floodway, and does not constitute a significant floodplain encroachment as defined in 23 CFR 650.105(q).

The viaducts will be located in the central part of the project area and will span Center Valley Road, the lower reach of Haehl Creek just upstream of the confluence with Baechtel Creek, Hearst-Willits Road, Baechtel and Broaddus Creeks at their confluence (beginning of the Outlet Creek designation), the WWTP, and Mill Creek.

The approximately 6,000-foot-long structures will consist of a separate northbound and southbound elevated viaduct superstructure. The total area of both viaducts would be 11.6 acres. Each of the viaducts will be approximately 42.6 feet wide. The edge-to-edge distance between the structures will be approximately 31.2 feet, and each will have a

16.5-foot minimum clearance underneath. The viaducts will require supporting columns, ranging in size from 4.5 to 7 feet in diameter.

Reinforced Concrete Box Culverts

Two large reinforced concrete box (RCB) culverts will be built under Center Valley Road, near Shuster's Trucking to prevent floodplain impacts due to roadway embankment south of Center Valley Road. These two culverts will use turf reinforcement mats in lieu of rock slope protection (RSP) at the inlets and outlets where feasible.

Retaining Walls

Three concrete retaining walls will be constructed: two at the Haehl Creek interchange, and one just before the south end of the viaduct near Baechtel Creek. One Haehl Creek interchange wall will be located along the west side of the northbound on-ramp; the other will be located along the east side of the northbound lanes between the separation structure over SR 20 and the Haehl Creek bridge. The Baechtel Creek retaining wall will prevent floodplain elevation increases.

Excavation (Cut), Embankment (Fill), and Imported Borrow

The estimated embankment requirement for Phase 1 of the proposed project is approximately 1.4 million cubic yards. Because all soil excavated on-site will be reused as embankment, no disposal sites will be required for the project. Beginning just north of the Haehl Creek interchange to the south abutment of the viaduct, and from the north abutment of the viaduct to the terminus of the project, the alignment will be constructed largely on embankment created using excavated soil and imported fill material. Cut slopes will generally vary between a 1:2 (vertical: horizontal) and 1:2.5 ratio. Fill slopes will vary between a 1:2 and 1:4 ratio. The plans call for slope rounding at appropriate locations.

The bypass will require imported borrow material from outside the project area in addition to material excavated on-site. The construction contractor will have the option to determine whether the source of material for earthwork fill will be the Caltrans-designated borrow site at Oil Well Hill, a commercial borrow site, or another site.

An optional borrow site has been designated at Oil Well Hill, just north of Little Lake Valley, as a source of material that the contractor may use for the project. The material in this area is good-quality and suitable for use in embankment construction. The right-of-way for U.S. 101 at the designated borrow site is sufficient to provide the necessary embankment material for earthwork. Potential excavation at the proposed designated borrow site at Oil Well Hill could result in the removal of up to 1.4 million cubic yards of material. The State Geology and Mining Board granted an exception to the Surface Mining and Reclamation Act (SMARA) permitting requirement on March 13, 2008. The

contractor may also choose to use available commercial borrow sites in the vicinity to obtain the required fill. Typically, commercial borrow sites hold pre-approved operating permits and do not require any additional environmental permitting when soil is exported. Should the contractor select an alternative, non-commercial borrow site for this project, the contractor will be responsible for conducting a separate environmental review for the site.

Fish Passage

One existing culvert in the upper Haehl Creek channel, located under the proposed highway bridge 10-0129R/L, will be permanently removed and restored as a natural drainage feature. Fish passage on a second existing culvert in upper Haehl Creek will be improved by stabilizing the stream gradient to allow a backwater pool to extend throughout the length of the culvert. An existing RCB culvert in the vicinity of the proposed Quail Meadows interchange and passing under US 101 will be permanently removed and the creek contoured, re-graded, stabilized, and replanted; local traffic will cross Upp Creek on the new bridge that will be on the north leg of the roundabout.

Stabilization of both creek channels that pass through the interchange areas (Haehl and Upp Creeks) will consist of grade control structures located downstream of the culvert, at appropriate heights and intervals, for the distance necessary to stabilize the natural stream gradient. Fish passage design elements will comply with guidelines established by National Marine Fisheries Service (NMFS) and California Department of Fish and Game (DFG).

An existing culvert under the access road to the Schmidbauer Ranch will be improved. This access road will be from the east side of the southern interchange. The existing culvert in upper Haehl Creek will be backwatered by building grade control structures downstream to restore and stabilize the natural stream gradient. Stabilizing the natural stream gradient will allow the bottom of the stream bed to aggrade to the culvert elevation. Construction of grade control structures will occur during summer when this reach of Haehl Creek is normally dry. If water is present, a qualified fisheries biologist will survey the pool for the presence of salmonids. If present, the fish will be removed and relocated before removal and replacement of the culvert.

Landscaping

Disturbed upland areas such as the cut and fill slopes adjacent to the roadway and along interchange ramps, as well as the median between the inside roadway shoulders, will be revegetated with native plants sourced from the following locations, in priority order: Little Lake Valley, Outlet Creek watershed, Eel River watershed. For drivers' safety and in compliance with Caltrans design standards, no trees will be planted within the clear recovery zone where errant vehicles could hit them. Only soft shrubby and herbaceous native species may be planted throughout these areas to prevent abrupt slowing, redirection, or launching of stray vehicles. Temporarily impacted areas will be

revegetated to their pre-construction plant community type. They will be seeded and planted with native plants sourced from the following locations, in priority order: Little Lake Valley, Outlet Creek watershed, Eel River watershed.

Stream Bank Stabilization

To prevent bank erosion and damage to the bypass facilities, RSP and other bank stabilization treatments will be required along short lengths of creek banks. The use of RSP will be minimized through the substitution of "Rolled Erosion Control Product" (RECP; netting) or "Turf reinforcement Mat" (TRM) in appropriate locations.

At locations where Haehl and Upp Creeks pass through the right-of-way, the stream channel will be contoured, re-graded, and designed for fish passage following the guidelines set forth by NMFS and DFG.

Mitigation Construction

Bypass construction will result in temporary and permanent impacts on riparian and wetland habitat and permanent impacts on other waters and oak habitat. Temporary impacts on riparian and wetland habitat will be mitigated on site through the use of restoration techniques. Permanent impacts on riparian and wetland habitat will be mitigated off site through the use of creation, enhancement, and/or preservation techniques.

On site mitigation implementation will focus primarily on restoring temporarily affected riparian and wetland habitat within the bypass project footprint. In addition, on site minimization efforts related to state-listed plant species (e.g., seed collection, and topsoil harvesting and stockpiling) will be required. On site mitigation actions with the potential to result in impacts on wetlands, other waters, riparian habitat, listed plant species and/or listed fish will entail the following activities, and are summarized below (a full description of proposed mitigation actions is presented in the Final MMP):

- Site Preparation. Site preparation of on site mitigation sites will entail vegetation clearing and seed, rhizome, and topsoil salvaging. Vegetation clearing will be conducted within the bypass project footprint and will entail the use of heavy equipment to strip the existing vegetation. Prior to the beginning of ground-disturbing project construction activities, known populations of listed plant species to be affected by construction either will be salvaged for transportation to adjacent on site locations or salvaged for relocation to offsite mitigation parcels, where the harvested material will be used to topdress created wetlands.

- Grading. Temporarily affected locations will be graded as necessary to reestablish appropriate topography and site drainage. The disturbed locations will be configured to replicated preproject conditions as closely as possible. Grading will be limited to the dry season (late spring through early fall). Erosion

control seed mixes will be applied after grading is complete but prior to the onset of wet season rains to prevent loosened material/sediment from entering wetlands or waters near the bypass project footprint.

- Seeding. Temporarily affected riparian and wetland locations will be seeded with an erosion control mix or a wetland seed mix, depending on location in the bypass project footprint. The seed will be from locally collected seed or plants (i.e., sourced from the following locations, in priority order: Little Lake Valley, Outlet Creek waterhsed, Eel River watershed). All temporarily affected riparian locations and wetland locations outside the viaduct construction area will be seeded with an erosion control mix. Temporarily affected wetlands in the viaduct construction area will be seeded with a wet meadow seed mix.

- Planting. Temporarily affected riparian and wetland locations in the viaduct construction area will be restored using container stock grown from locally collected seed or cuttings (i.e., sourced from the following locations, in priority order: Little Lake Valley, Outlet Creek watershed, Eel River watershed). Container plants will be placed in a planting hole that will be hand excavated or augured.

Mitigation on individual offsite mitigation parcels may include a combination of habitat restoration, creation, enhancement, and/or preservation. Off site mitigation actions with the potential to result in impacts on wetlands, other waters, riparian habitat, listed plant species and/or listed fish will entail similar ground-disturbing activities (e.g., site preparation, grading, seeding, and planting) as those described above for on site mitigation areas. In addition, grazing management plans will be developed for each of the off site mitigation parcels. The plans will include strategies to promote the establishment and preservation of target wetland communities and associated plant species and to support and potentially increase the extent of currently occurring listed plant species. Enhancement actions for each parcel may include repairing and replacing existing fences and gates to control livestock; developing and implementing rotational grazing strategies to promote the establishment and preservation of target listed plant species and wetland communities; installing permanent and/or temporary exclusion fencing around sensitive areas; installing water troughs in each grazing management unit to spread grazing across the entire unit; and locating salt licks away from drainages and areas to be protected.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), Red-shouldered hawk (*Buteo lineatus*), and other raptors; Southern Oregon-Northern California Coasts (SONCC) coho salmon (*Oncorhynchus kisutch*), California coastal Chinook salmon (*Oncorhynchus tshawytscha*), northern California steelhead (*O. mykiss irideus*); yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and other riparian-dependent bird species; special-status plants including Baker's meadow-foam

(*Limnanthes bakeri*) and North Coast semaphore grass (*Pleuropogon hooverianus*), as well as other non-game and game fishes, amphibians, reptiles, aquatic invertebrates, mammals, birds, and other aquatic and riparian species.

The adverse effects the project could have on the fish or wildlife resources identified above include: disruption of raptor nesting behavior and decreased reproductive success due to construction disturbance; loss of occupied passerine habitat and nests, including eggs and/or nestlings, as a result of vegetation removal; direct mortality of fish, amphibians, and other aquatic species during pile driving and construction de-watering activities; temporary and permanent impacts to aquatic species due to suspended sediment and the smothering and/or shading of egg masses and benthic invertebrate communities due to sediment deposition; direct removal of special-status plants and occupied habitat as a result of construction activities.

Implementation of the Project, including wetland creation and other mitigation activities, will result in the following permanent and temporary impacts on riparian corridors, oak woodlands, jurisdictional wetlands, and special-status plant habitats:

Table 1. Temporary and permanent resource impacts *after* removal of overlaps.

Resource	Temporary Impacts (acres)	Permanent Impacts (acres)	Total Impacts (acres)
North Coast semaphore grass	0.02	0.39	0.41
Baker's meadowfoam	36.74	33.51	70.25
Category I Riparian Corridor[1]	8.15	2.38	10.53
Jurisdictional Wetlands	12.58	26.07	38.65
Other Waters	2.04	2.03	4.07
Category II Riparian Corridor[2]	0.03	3.56	3.59
Category III Riparian Corridor[3]	0.31	0.93	1.24
Oak Woodland (tree canopy)			
Lowland	0.08	5.70	5.78
Upland	0.00	5.02	5.02
Oak Woodland (grassland)			
Lowland	2.34	26.26	28.60
Upland	0.00	7.83	7.83
Total:	**62.29**	**113.68**	**175.97**

[1] Riparian corridors adjacent to salmonid streams
[2] Riparian corridors on tributaries to salmonid streams within 1,000 feet of the confluence with a Category I stream
[3] Riparian corridors that are more than 1,000 feet upstream from the confluence with a Category I stream

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site at any time after notifying the Caltrans Resident Engineer to verify compliance with the Agreement.

1.5 Permittee's notification (Notification of Lake or Streambed Alteration together with all maps, plans, photographs, drawings, and all other supporting documents submitted with notification to describe the activity) is hereby incorporated by reference into this Agreement. Permittee shall conduct project activities within the work areas and using the mitigative features described in the notification and supporting documents, unless such project activities, work areas or mitigative features are modified by the provisions of this Agreement, in which case the activities shall be conducted as described in this Agreement.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

2.1 All work within the channel or on the stream banks shall be confined to the period commencing June 15 and ending October 15, provided the stream is dry or at minimum flow. If weather conditions permit and the stream is dry or at minimum flow, the Permittee may perform work within the stream channel or on the banks

outside of the above referenced work window, provided a written request is made to DFG at least five (5) days before the proposed work period variance. Written approval from DFG for the proposed work period variance must be received by the Permittee prior to the start or the continuation of work outside of the above referenced work window.

2.2 If work is performed within the stream channel or on the banks outside of the above referenced work window, the Permittee shall do all of the following:

a. Stage erosion and sediment control materials at the work site.

b. Monitor the seventy-two (72) hour forecast from the National Weather Service.

c. When the 72-hour forecast indicates a probability of precipitation of 60% or greater, or at the onset of any precipitation, ground disturbing activities shall cease and erosion control measures shall be implemented to stabilize exposed soils and prevent the mobilization of sediment into the stream channel or adjacent wetland or riparian areas.

2.3 Notwithstanding Condition 2.1 above, removal of the above-ground portions of existing trees and shrubs shall occur after August 31 and before February 1 to avoid impacts to nesting birds. If vegetation must be removed during the nesting season (February 1 to August 31) nest surveys shall be conducted prior to vegetation clearing.

2.4 The Permittee shall instruct all persons who will be completing any ground disturbing activity at a work site to comply with the conditions set forth in this Agreement and shall inspect each work site before, during, and after completion of any ground-disturbing activity at the work site.

2.5 Permittee shall conduct an education program for all persons employed or otherwise working on the Project site prior to performing any work on-site. The program shall consist of a presentation that includes a discussion of the sensitive resources existing within and adjacent to the work area, including State and federally listed species, as well as the protective measures required in this Agreement and the Incidental Take Permit for the Project. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to DFG upon request.

2.6 At least 30 days before initiating channel- ground- or vegetation-disturbing activities, Permittee shall submit to DFG in writing the name, qualifications, business address, and contact information for a biological monitor (Designated Biologist). The Designated Biologist shall be knowledgeable and experienced in the biology and natural history of the Project area, with special emphasis on special-status species and sensitive habitats. The Designated Biologist shall be responsible for monitoring Project activities and/or channel- ground- or vegetation-disturbing activities within habitats for special-status species and other sensitive areas. Permittee shall obtain DFG approval of the Designated Biologist prior to the commencement of Project-related activities that may result in disturbance to special-status species or sensitive habitats.

2.7 The Designated Biologist shall be on-site daily while Project activities including all pile installation, dewatering, channel- vegetation- or ground-disturbing activities that may affect special-status species are taking place to: (1) minimize incidental take of special-status species; (2) check for compliance with all mitigation and avoidance measures; (3) check all exclusion zones; and (4) ensure that signs, stakes, and fencing are intact, and that human activities are restricted outside of these protective zones. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of special-status species, survey results, and monitoring activities required by this Agreement. The Designated Biologist shall conduct compliance inspections a minimum of once per month during periods of inactivity and after clearing, grubbing, and grading are completed.

HABITAT AND SPECIES PROTECTION

2.8 To avoid disturbance to nesting white-tailed kites and other raptors, a qualified biologist shall conduct pre-construction field surveys during the courtship period (February) to identify nesting territories within ¼ mile of the Project alignment. If active nests are identified within ¼ mile of the alignment, a no-construction buffer will be established around the nest until the young have successfully fledged. No take of white-tailed kites or other raptors, including their nests, eggs, or young is authorized by this Agreement.

2.9 This Agreement does not authorize the take of any State or federal threatened or endangered species. Any take of listed threatened or endangered species that is incidental to Project activities shall be in full compliance with the terms and conditions of the Incidental Take Permit issued by DFG for the Project (ITP #2081-2010-007-01) and the federal Biological Opinion and Incidental Take Statement issued by National Marine Fisheries Service (NMFS) for the Project (BO #2010/01124:DW).

2.10 Prior to initiating channel- vegetation- or ground-disturbing Project activities, Permittee shall clearly delineate right-of-way and/or property boundaries of the

Project site with fencing, stakes or flags and shall similarly delineate the limits of Project activities. Permittee shall restrict all project activities to within the fenced, staked or flagged Project boundaries. Permittee shall maintain all fencing, stakes and flags until the completion of Project activities.

2.11 Wetlands, riparian areas, oak woodlands, and habitat for Baker's meadowfoam and North Coast semaphore grass within the Project limits but outside the work area shall be designated as Environmentally Sensitive Areas (ESAs) and shall be off limits to construction equipment and personnel.

2.12 ESA fencing shall consist of temporary orange construction fence or other highly visible material that clearly delineates the limits of the work area. Environmentally Sensitive Areas shall be clearly shown on the Project plans and drawings. The Permittee shall ensure that the contractor, subcontractors, and all personnel working on the Project are instructed on the purpose of the ESA fencing and understand the limits of the work area. ESA fencing shall be installed prior to the beginning of channel- ground- or vegetation-disturbing activities. The placement of ESA fencing shall be inspected and approved by DFG prior to the initiation of work.

2.13 Disturbance or removal of riparian and wetland vegetation shall not exceed the minimum necessary to complete operations. Where feasible, hand tools (chain saws, etc.) shall be used to trim woody riparian vegetation to the extent necessary to gain access to work sites. Whenever possible, root systems shall be left intact to facilitate more rapid recovery following temporary construction impacts.

2.14 Except where provided for within this agreement, the removal of riparian vegetation from the streambed or streambanks is prohibited without prior written approval from DFG. The work area shall be identified to all workers, as represented in plans.

CULVERTS AND INSTREAM STRUCTURES

2.15 All work within the channel or on the banks shall be performed when the channel is dry or at minimum flow. If water is present during construction, all work shall be performed in isolation from surface or subsurface flow.

2.16 Where water is present, a temporary stream diversion shall be constructed to isolate the work area from flow. Temporary diversions may be constructed using gravel berms, clean washed spawning gravels, sand bags, K-rail, plastic sheeting, or a combination of these materials upstream from the work area. Flows will then be diverted into a temporary culvert, pipe, or conduit and released downstream from the work area.

2.17 Dewatering shall be done in a manner that prevents the discharge of material that could be deleterious to fish, plants or other aquatic life and maintains adequate

flows to downstream reaches during all times natural flow would have supported aquatic life.

2.18 Any turbid water pumped from the work area shall be used for construction purposes (compaction, dust abatement, etc.) or properly disposed of in an upland area where it will not drain to surface waters or wetlands.

2.19 If clean washed spawning gravel (0.5" – 4") is used for diversion berms, it may be left in the channel following construction provided it is spread to a depth less than 6 inches and does not impede the movement of fish or redirect stream flows. All other temporary diversion materials shall be removed from the stream channel upon completion of work.

2.20 Temporary bridges, culverts, or other structures that will remain in the channel after October 15 shall be designed to pass the 100-year flood event. Structures and materials not designed to withstand high flows shall be removed from the floodplain prior to October 15.

2.21 Installation of permanent culverts, bridges, grade control structures, instream habitat enhancement features, and other permanent channel modifications shall not impede the passage of fish up or down stream. Permittee shall submit detailed designs for work within the stream channel to DFG for review and approval no later than August 1, 2010.

2.22 Drafting of water from surface watercourses is not authorized by this Agreement. Water for construction purposes shall be obtained from commercial municipal, industrial or groundwater sources.

INSTALLATION OF TEMPORARY AND PERMANENT PILES

2.23 All pile driving activities, including installation of sheet piles, temporary and permanent piles located within the channel or below the top of bank, shall be confined to the period June 15 through October 15. Installation of permanent bridge or viaduct piles within 50 feet of the channel shall be confined to the period June 15 through October 15. Depending on the results of hydroacoustic monitoring, the Permittee may install permanent bridge or viaduct piles within 50 feet of the channel outside this work window, provided a written request is made to DFG. Written approval from DFG for the work period variance must be received by the Permittee prior to the start or continuation of work outside the June 15 – October 15 work window.

2.24 Permanent pile driving activities within the stream channel shall be contained within coffer dams. A bubble curtain or other approved attenuation measure will be used to reduce sound exposure levels.

2.25 If surface water is present within the channel, Permittee shall conduct hydroacoustic monitoring to document peak sound pressure levels and cumulative sound exposure levels during all permanent pile driving activities in the channel or within 50 feet of the channel. Driving of temporary trestle and falsework piles below the top of bank shall also be monitored. If underwater sound pressure levels for each pile type and size do not vary to a large degree, the Permittee may request written approval from DFG to discontinue hydroacoustic monitoring. Permittee shall submit a Hydroacoustic Monitoring Plan for review and approval by DFG no later than March 15, 2011.

2.26 Prior to conducting temporary or permanent pile driving activities within the channel, or within 50 feet of the channel, Permittee shall exclude, remove and relocate fish from coffer dams and those portions of the stream where cumulative sound exposure levels ($SEL_{Cumulative}$) are predicted to exceed the interim injury criteria of 183 dB. One or more of the following NMFS-approved methods shall be used to capture coho and other salmonids: dip net, seine, throw net, or electrofishing.

2.27 If pile driving activities are expected to exceed interim $SEL_{Cumulative}$ threshold levels for more than two consecutive days, Permittee shall dewater the affected stream reach in lieu of using block nets to exclude fish. During dewatering, flows in the affected reach shall be diverted incrementally to facilitate fish capture and relocation. Flows shall be reduced over a minimum 4-hour period in the following increments: 50%, 75%, 90%, and 100%.

2.28 Pumps used to dewater cofferdams, and pipes or conduits used to dewater stream reaches, shall be screened as follows:

a. Perforated plate: screen openings shall not exceed 3/32 inches (2.38 mm) in diameter.
b. Woven wire: screen openings shall not exceed 3/32 inches (2.38 mm) measured diagonally.
c. Screen material shall provide a minimum of 27% open area.
d. Approach velocity shall not exceed 0.33 feet per second.

2.29 Fish relocation activities shall be overseen by the Designated Biologist and shall be conducted by qualified fisheries biologists that are authorized by NMFS and DFG to handle listed salmonids. Captured fish will be segregated by size to minimize predation, and maintained in cool, well-oxygenated water until released to suitable habitat outside the construction impact area.

EROSION AND SEDIMENT CONTROL

2.30 The project shall at all time feature adequate erosion and sediment control devices to prevent the degradation of water quality.

2.31 Soils exposed by project operations shall be treated to prevent sediment runoff and transport. Erosion control measures shall include the proper installation and maintenance of approved Best Management Practices (BMPs) and may include applications of seed, certified weed-free straw, compost, fiber, commercial fertilizer, stabilizing emulsion and mulch, or combinations thereof.

2.32 Erosion control measures shall be monitored and maintained during and after each storm event. Modifications, repairs, and improvements to erosion control measures shall be made following each storm event to prevent sediment from entering surface waters or wetlands.

2.33 Soils adjacent to the stream channel that are exposed by project operations shall be adequately stabilized when rainfall is reasonably expected during construction, and immediately upon completion of construction, to prevent the mobilization of such sediment into the stream channels or adjacent wetlands. National Weather Service forecasts shall be monitored by the Permittee to determine the chance of precipitation.

2.34 Following construction, all disturbed upland areas shall be stabilized and reseeded with an erosion control mix consisting of regionally appropriate, native grass and forb species. Temporarily affected wetlands shall be seeded with a wet meadow seed mix. Seed will be obtained from the following locations, in priority order: Little Lake Valley, Outlet Creek Basin, or the Eel River watershed.

EQUIPMENT ACCESS

2.35 Vehicles shall not be driven, or equipment operated, in water covered portions of a stream, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the Agreement to complete authorized work.

2.36 Project-related personnel and equipment shall access the Project site using existing designated routes and shall not cross undisturbed ground outside of or in route to the Project site. Project-related vehicle traffic shall be restricted to established roads, staging, and parking areas. If Permittee determines construction of off-site routes for travel are necessary, Permittee shall contact DFG prior to carrying out such an activity. DFG may require an amendment to this Agreement if additional resource impacts may result from Project modification.

PETROLEUM, CHEMICAL AND OTHER POLLUTANTS

2.37 All construction-related materials and equipment shall be stored in designated staging areas located a minimum of 150 feet from streams or other water bodies unless approved in writing by DFG.

2.38 Refueling and vehicle maintenance shall be performed at least 150 feet from streams or other water bodies unless approved in writing by DFG.

2.39 No equipment or machinery shall be operated within any flowing stream.

2.40 Any equipment or vehicles driven and/or operated within or adjacent to the stream channel shall be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life, wildlife, or riparian habitat.

2.41 All equipment used during construction of this Project shall be cleaned (i.e. free of dirt and debris that may harbor noxious weed seeds and plant parts) prior to its arrival on site and before leaving the Project area.

2.42 Stationary equipment such as motors, pumps, generators, and welders that contain deleterious materials, located within or adjacent to a stream shall be positioned over drip pans.

2.43 All activities performed in or near a stream shall have absorbent materials designated for spill containment and clean up activities on-site for use in an accidental spill. The Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the clean up activities. DFG shall be notified by the Permittee and consulted regarding clean-up procedures.

2.44 No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, asphalt, paint or other coating material, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

3.1 Prior to initiating channel- ground- or vegetation-disturbing Project activities, and no later than December 31, 2010, the Permittee shall acquire and protect a minimum of 1,910 acres of Habitat Management Lands (HM Lands) identified in the Final Mitigation and Monitoring Proposal dated June 8, 2010. On these lands, the Permittee shall create, enhance, restore, and preserve habitats in the following amounts to offset Project impacts:

North Coast semaphore grass. Permittee shall acquire, restore, and permanently preserve four extant populations of North Coast semaphore grass totaling 5.094 acres on approximately 70 acres of HM Lands. A restoration and management plan for the HM Lands shall be prepared and submitted to DFG for approval within 18 months after the effective date of this Agreement. The plan shall specify vegetation management actions and enhancement measures designed to result in a net expansion of existing semaphore grass populations on the HM Lands.

Baker's meadowfoam. A total of 1,120.34 acres of habitat shall be acquired and preserved, including 120.38 acres of occupied habitat, 999.96 acres of potentially suitable habitat, and 9.62 acres of restored habitat.

Category I Riparian Habitat. Compensatory mitigation for riparian habitat impacts on salmonid streams shall focus on creation, enhancement, and preservation of riparian corridors along Outlet Creek and other salmonid streams. A total of 147.97 acres shall be acquired, including creation of 47.57 acres of new habitat, enhancement of 48.51 acres of habitat, and protection or preservation of 100.40 acres of existing habitat.

Jurisdictional Wetlands and Other Waters. Impacts to jurisdictional wetlands will be mitigated through creation of 24.33 acres of new wetlands, enhancement of 1,101.13 acres of existing wetlands, preservation of 53.44 acres, and restoration of 3.70 acres of existing wetlands. Mitigation for impacts to other jurisdictional waters will include enhancement of 17.58 acres through planting riparian vegetation and oaks on the banks of existing watercourses and through protecting 21.99 acres and preserving 2.16 acres of existing habitat.

Category II and III Riparian Habitat. Permanent and temporary impacts to Category II and III riparian corridors shall be mitigated by the creation, enhancement, and preservation of Category I, II, and III Riparian Corridors, with the highest priority being placed on Category I habitats. A total of 1.76 acres of new habitat will be created, 4.46 acres enhanced, and 15.63 acres protected. In addition, a total of 109.15 acres of other riparian habitat not associated with a defined watercourse will be created, enhanced, protected and preserved on the off-site HM Lands.

Lowland Oak Woodland. A total of 22.24 acres of new valley oak woodland will be planted, with an additional 2.31 acres of existing woodland preserved and restored. In addition, 201.03 acres of existing oak woodland grassland will be preserved and restored.

Upland Oak Woodland. Permanent impacts to upland oak woodland will be mitigated by preserving a minimum of 15.06 acres of existing oak canopy and 26.71 acres of oak woodland grassland at the north end of Little Lake Valley.

3.2 Prior to initiating channel- vegetation- or ground-disturbing activities, and no later than December 31, 2010, Permittee shall submit detailed mitigation plans to DFG for review and approval. The plans shall include 1) a detailed description of the baseline condition of each HM Land parcel acquired to offset impacts to the resources identified above, 2) a detailed description of the measures that will be used to restore and enhance the ecological functions of the HM Lands, including final design and planting details for habitat creation, revegetation, and enhancement actions, 3) a discussion of the parameters that will be monitored to determine changes in ecological functions, including the frequency of monitoring, methods to be used, and criteria used to determine success, 4) an adaptive management plan to be implemented in the event expected results are not achieved, and 5) a long-term plan for managing and maintaining the HM Lands after success criteria have been met.

3.3 Permittee shall provide for the permanent protection of the off-site HM Lands by transferring fee title to the properties to the Mendocino County Resource Conservation District (MCRCD) or another entity under terms approved by DFG. If fee title is held by an entity other than DFG, a conservation easement in a form approved by DFG shall be recorded on title of the HM Lands. The grantee of the conservation easement may be DFG, a DFG-approved non-profit organization qualified pursuant to California Government Code section 65965, or a public agency approved by DFG and authorized to hold conservation easements. If a DFG-approved non-profit organization or approved public agency is grantee on a conservation easement, DFG shall be named third party beneficiary;

3.4 Permittee shall conduct a Property Analysis Record (PAR) or equivalent analysis to determine the appropriate endowment amount to fund the in-perpetuity management of the required HM Lands. Permittee shall provide the required endowment to DFG after DFG reviews and approves the PAR. Monies received by DFG pursuant to this Condition shall be deposited in a special deposit account established pursuant to Fish and Game Code section 13014. DFG may pool the endowment with other endowments for the operation, management and protection of HM Lands for local populations of the Covered Species. Endowment funds provided as described above may alternatively be held by a DFG-approved non-profit organization qualified to hold endowment funds;

3.5 Permittee must complete the required acquisition, protection and transfer of all HM Lands and record the required conservation easements in favor of DFG within 18 months after the effective date of this Agreement.

3.6 In addition to the off-site HM Lands identified above, Permittee shall conduct work to improve fish passage on Ryan Creek. In consultation with DFG, Permittee shall prepare draft and final designs for a project to remediate existing barriers to fish passage at the South Fork (PM 52.25) and North Fork (PM 52.36) Ryan Creek culverts on U.S. 101. Draft plans for both crossings will be submitted to DFG for

review no later than June 30, 2011. Final plans will be prepared and submitted to DFG for approval no later than June 30, 2012.

3.7 Permittee shall complete construction of the South Fork Ryan Creek culvert remediation project no later than October 31, 2013.

3.8 Permittee shall prepare cost estimates for the passage improvement work on the North Fork Ryan Creek culvert based on the final design prepared under Condition 3.6 above and shall apply for funding to complete this work in a timely manner.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

4.1 Daily Monitoring Reports. Daily observations from the Designated Biologist during pile installation, dewatering and fish relocation, channel modification, and vegetation clearing activities shall be transmitted to DFG in electronic format on a weekly basis.

4.2 Quarterly Compliance Report: Permittee shall compile the observation and inspection records identified in Condition 4.1 above into a Quarterly Compliance Report and submit it to DFG along with a summary of Project activities, the current implementation status of each mitigation measure, and any recommended modifications in monitoring methods.

4.3 Annual Status Report: Permittee shall provide DFG with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of the Agreement and continuing until DFG accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: 1) a summary of all Quarterly Compliance Reports identified in Condition 5.4, 2) a general description of the status of the Project site and Project activities, including actual or projected completion dates, if known; 3) a summary of the annual mitigation monitoring reports and the current implementation status of each mitigation measure; and 4) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and mitigating Project impacts.

4.4 Final Mitigation Report: No later than 60 days after completion of the Project, including completion of all mitigation measures, Permittee shall provide DFG with a Final Mitigation Report. The Final Mitigation Report shall be prepared by the Designated Biologist and shall include, at a minimum: 1) a summary of all Monthly/Quarterly Compliance Reports and all ASRs, 2) copies of all mitigation monitoring reports documenting when success criteria for each of the mitigation measures were achieved; 3) all available information about Project-related incidental take of threatened or endangered species; 4) information about other Project impacts on threatened or endangered species; 5) dates of Project activities; 6) an assessment of the effectiveness of the required measures in

minimizing and mitigating Project impacts ; 7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects; and 8) any other pertinent information.

CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

To Permittee:

Mr. Dave Kelley
Department of Transportation
District 3
703 B Street, P.O. Box 911
Marysville, California 95901
Fax: (530) 741-4299
dave_kelley@dot.ca.gov

To DFG:

Department of Fish and Game
Northern Region
601 Locust Street, California 96001
Attn: Lake and Streambed Alteration Program – Craig Martz
Notification #1600-2010-0044-R1
Fax: (530) 225-0324
cmartz@dfg.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees,

representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire ~~on December 31, 2015,~~ 5 years from the effective date unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

CB

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR DEPARTMENT OF TRANSPORTATION

Dave Kelley
Project Manager

6-25-2010
Date

FOR DEPARTMENT OF FISH AND GAME

Curt Babcock
Acting Habitat Conservation Program Manager

6/29/10
Date

Prepared by: Craig Martz, Staff Environmental Scientist

California Department of Fish and Game
Northern Region
601 Locust Street
Redding, California 96001

California Endangered Species Act
Incidental Take Permit No. 2081-2010-007-01

Willits Bypass Project

Authority: This California Endangered Species Act (CESA) Incidental Take Permit (ITP) is issued by the Department of Fish and Game (DFG) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 et seq. CESA prohibits the take[1] of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.[2] DFG, however, may authorize the take of such species by permit if the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c) are met. (See also Cal. Code Regs., tit. 14, § 783.4.)

Permittee:	**California Department of Transportation (Caltrans)**
Name and title of principal officer:	**Dave Kelley, Project Manager**
Contact person:	**Jeremy Ketchum, (916) 274-0621**
Mailing address:	**2389 Gateway Oaks Dr. (MS-15)** **Sacramento, California 95833**

Effective Date and Expiration Date of the ITP:
This ITP shall be executed in duplicate original form and shall become effective once a duplicate original is acknowledged by signature of the Permittee on the last page of the ITP and returned to DFG's Habitat Conservation Planning Branch at the address listed in the Notices section of this ITP. Unless renewed by DFG, this ITP's authorization to take the Covered Species shall expire on **December 31, 2020**.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations under this ITP do not end until DFG accepts as complete the Permittee's Final Mitigation Report required by Condition 6.6 of this ITP.

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[1]Pursuant to Fish and Game Code section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

[2]"Candidate species" are species of wildlife that have not yet been placed on the list of endangered species or the list of threatened species, but which are under formal consideration for listing pursuant to Fish and Game Code section 2074.2.

Project Location:
The Willits Bypass Project (Project) is located near the City of Willits in Little Lake Valley, Mendocino County, California (See Figure 1). The Project involves construction of a new freeway alignment to the east of Willits. The southern terminus of the new alignment is located at Post Mile (PM) R43.1 about 2.0 miles south of Willits at 39.371887° north, 123.321514° west. The northern terminus of the new alignment is located at PM R49.0, approximately 1.9 miles south of Reynolds Highway at 39.437511° north, 123.356766° west. The Project site is bounded by the City of Willits to the west and the Little Lake Valley to the east.

Project Description:
The Project consists of a four-lane freeway bypass crossing the Little Lake Valley east of the City of Willits. The freeway will maintain a minimum design speed of 68 miles per hour and will feature a 45.3-foot median separating the northbound and southbound lanes. Each lane will be 12 feet wide. The inside shoulder width (nearest the median) will be 5 feet, while the outside shoulder width will be 10 feet. The Project will begin approximately 2.0 miles south of Willits, where the existing four-lane freeway becomes a two-lane highway, and will continue north, rejoining the existing two-lane highway about 1.3 miles north of the Willits city limits. The overall length of the bypass will be approximately 5.8 miles, starting near PM R43.1 and ending near R49.0 (See Figure 1-2a).

The bypass alignment will diverge from existing U.S. 101 at the new Haehl Creek interchange and continue northwesterly on an embankment constructed with excess fill from a previous freeway project. At the Center Valley Road over-crossing, the roadway embankment will be replaced by a floodway viaduct, approximately 6,000 feet long. The viaduct structure will span the regulatory floodway, roughly paralleling the east bank of Baechtel Creek until it crosses the creek at the confluence with Broaddus Creek east of the Willits Waste Water Treatment Plant (WWTP). The bypass will continue on viaduct as it curves to the west and crosses Mill Creek. From a point approximately 600 feet west of the Mill Creek crossing, the facility will continue northwest on fill, bridging the Northwestern Pacific Railway (NWPRR) right-of-way before rejoining the existing alignment of U.S. 101 at the new Quail Meadows interchange.

Funding constraints require that the Project be constructed in two phases. Phase 1 consists of the two interchanges and the two southbound lanes which will be operated as a two-lane bypass (one lane in each direction). Construction of Phase 1 is expected to take four years to complete. As funding allows in Phase 1, Permittee intends to construct as much of the four-lane embankment as possible to help facilitate the construction of Phase 2. Although only Phase 1 will be constructed at this time, Permittee will implement mitigation for the biological resource impacts of both Phase 1 and Phase 2, i.e. the full four-lane freeway. Funding for the second phase has not yet been identified. The additional funding necessary to construct Phase 2 will likely come from a combination of federal, state, and local sources. This ITP covers construction of both Phase 1 and Phase 2 of the Project until the expiration of this

ITP. After the expiration date of this ITP, Permittee will no longer have incidental take authorization via this ITP.

Construction of the Project will require excavation and placement of up to 1.4 million cubic yards of fill material for roadway embankment; removal of native wetland, riparian and upland vegetation; construction of temporary access roads and haul roads; construction of temporary and permanent stream crossings; removal of existing culverts on Haehl and Upp Creeks that currently impede the passage of anadromous salmonids; reconstructing the longitudinal profile of these stream reaches to provide improved fish passage; installing rock slope protection (RSP) and/or other bank stabilization measures to protect structures; dewatering of work areas in wetlands and within stream chanels for construction of permanent bridge and viaduct piers; installation of sheet piles, temporary H piles, and permanent cast-in-steel-shell (CISS) piles using vibratory and percussive hammers; and installation of wick drains to provide a stable foundation for embankment fills.

In addition to erosion control and revegetation of temporary disturbance areas within the right-of-way, the Project also includes compensatory restoration, enhancement, and preservation activities required by various permitting agencies on a minimum of approximately 1,910 acres of off-site mitigation lands. An optional proposed borrow site at Oil Well Hill, located on the east side of U.S. 101, approximately 0.85-mile north of the intersection of Reynolds Highway and U.S. 101, has been designated as a source of fill material for the Project.

Dewatering of work areas within salmonid-bearing (Category I) streams will require capture and relocation of fish. Installation of temporary and permanent piles within or adjacent to the stream channel for coffer dams and bridge crossings is projected to exceed interim injury criteria for cumulative sound exposure levels ($SEL_{Cumulative}$) for juvenile salmonids. These activities are likely to result in the incidental take of individual Southern Oregon-Northern California Coasts (SONCC) coho salmon, a species designated as threatened under CESA (Cal. Code Regs. tit. 14 § 670.5, subd. (b)(2)(D)). Placement of fill for roadway embankments will permanently impact 0.386 acre and temporarily impact 0. 015 acre of habitat occupied by North Coast semaphore grass, a species designated as threatened under CESA (Cal. Code Regs. tit. 14 § 670.2, subd. (b)(10)(A)).

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name	CESA Status[3]
Fish	
1. SONCC coho salmon (*Oncorhynchus kisutch*)	Threatened
Plants	
1. North Coast semaphore grass (*Pleuropogon hooverianus*)	Threatened

These species and only these species are hereinafter referred to as "Covered Species."

Impacts of the Taking on Covered Species:
The Project activities described above and their resulting impacts are expected to result in the incidental take of individuals of the Covered Species. Incidental take of juvenile SONCC coho salmon is likely to occur as a result of mortality due to construction activities within and adjacent to streams traversed by the bypass (direct impacts). In particular, juvenile SONCC coho salmon may be killed or injured due to (1) dewatering of work areas, (2) capture and handling during relocation activities, and (3) cumulative sound exposure levels produced during the driving of temporary and permanent piles for structure footings. In addition, the impacts of the taking on SONCC coho salmon include the permanent loss of 2.38 acres of riparian habitat along Category I streams and the temporary removal of an additional 8.15 acres of riparian canopy along Category I streams. These reductions in riparian shade are expected to contribute to increased water temperatures and loss of shaded riverine aquatic habitat for juvenile fish. Vegetation removal, excavation, and other ground-disturbing activities adjacent to watercourses may also result in increased sediment deposition, degrading instream habitat by filling pools and adversely affecting production of benthic invertebrates.

Placement of fill material for the freeway embankment between Mill Creek and the NWPRR right-of-way in the northern portion of the alignment will directly impact 0.401 acre of occupied habitat for North Coast semaphore grass. Direct impacts include the permanent loss of 0.386 acre (an estimated 2,798 plants) and temporary impacts on 0.015 acre (an estimated 28 plants). Seed and plant propagules (rhizomes) will be collected from areas of permanent impact prior to construction for propagation and re-introduction to remaining areas of suitable habitat at this population site. In addition to directly affecting occupied habitat, placement of fill and installation of wick drains as part of roadway construction may indirectly affect the remaining 1.1 acres of occupied habitat (an estimated 6,428 plants) at this location.

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[3]Under CESA, a species may be on the list of endangered species, the list of threatened species, or the list of candidate species. All other species are "unlisted."

Impact mechanisms associated with indirect impacts include habitat fragmentation and degradation resulting from potential changes in drainage patterns and hydrology, introduction of weedy species, and soil compaction.

Indirect impacts to the Covered Species are expected to occur in the form of temporal losses, increased habitat fragmentation and edge effects, and the Project's incremental contribution to cumulative impacts. These impacts include: continued degradation of aquatic and terrestrial habitats, increased pollution, as well as increased vulnerability to predation and competition with non-native species.

Other Species Not Subject to the Take Authorization Provided by this ITP:

Fully Protected Species. This ITP does not authorize the take of any fully protected species. (See Fish & G. Code §§ 3511, 4700, 5050, 5515.) DFG has advised Permittee of the requirement to avoid take of fully protected species and believes the Permittee can implement the Project as described in this ITP in a manner consistent with the Fish and Game Code provisions governing fully protected species. DFG's determination regarding Project consistency with Fish and Game Code provisions governing fully protected species is based, in part, on Permittee's commitment, independent of this ITP, to implement and adhere to the following general avoidance and minimization measures during Project implementation related to white-tailed kite (*Elanus leucurus*), a species documented to occur within the vicinity of the Project. Permittee shall conduct pre-construction surveys during the courtship season to identify active nests within ¼ mile of the Project alignment. If an active white-tailed kite nest is found during surveys, Permittee will employ an avian biologist who will determine and establish a no-construction buffer of sufficient distance around the nest to ensure the adults are not disturbed and the young can successfully fledge.

Incidental Take Authorization of Covered Species:
This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, DFG authorizes the Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Project, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Project as described above, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species except for capture and relocation of Covered Species as authorized by this ITP. In addition, as set forth above, this ITP does not authorize take of any species designated as fully protected under the Fish and Game Code.

Conditions of Approval:
Unless specified otherwise, the following measures shall pertain to all channel-, ground-, or vegetation-disturbing activities within the Project construction boundaries, including areas used for ingress and egress routes during Project activities, and staging and parking areas. DFG's issuance of this ITP and Permittee's authorization to take the Covered Species are

subject to Permittee's compliance with and implementation of the following Conditions of Approval:

1. Legal Compliance. Permittee shall comply with all applicable state, federal, and local laws in existence on the effective date of this ITP or adopted thereafter.

2. CEQA and ESA Compliance. Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Biological Resources section of the Environmental Impact Report (SCH Number: 1990030006) certified by the Permittee as lead agency for the Project under the California Environmental Quality Act (CEQA) on December 15, 2006 and the Supplemental Environmental Impact Report certified by the Permittee on May 19, 2010. In addition, Permittee shall implement and adhere to all applicable terms and conditions in the Biological Opinion and Incidental Take Statement issued for the Project by the National Marine Fisheries Service (BO # 2010/01124).

3. LSA Agreement Compliance. Permittee shall implement and adhere to measures related to the Covered Species in the Streambed Alteration Agreement (Notification number 1600-2010-0044-R1) for the Project pursuant to Fish and Game Code section 1602 et seq.

4. ITP Time Frame Compliance. Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 1 to this ITP.

5. General Provisions:

5.1. Mitigation and Monitoring Proposal. Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Willits Bypass Project Final Mitigation and Monitoring Proposal (MMP) dated June 8, 2010, and any revisions to the MMP subsequently approved by DFG. Prior to initiating channel-, vegetation-, or ground-disturbing activities, and no later than December 31, 2010, Permittee shall submit a detailed mitigation plan to DFG for review and approval that will be incorporated into the MMP. The plan shall include (1) a detailed description of the baseline condition of each parcel of habitat mitigation (HM) Lands acquired to offset impacts to the Covered Species, (2) a detailed description of the measures that will be used to restore and enhance the ecological functions of the HM Lands, including final design and planting details for habitat creation, revegetation, and enhancement actions, (3) a discussion of the parameters that will be monitored to determine changes in ecological functions, including the frequency of monitoring, methods that will be used, and criteria used to determine success, (4) an adaptive management plan to be implemented in the event that expected results are not achieved, and (5) a

long-term plan for managing and maintaining the HM lands after success criteria have been met.

5.2. Designated Representative. Before initiating channel-, ground-, or vegetation-disturbing Project activities, Permittee shall designate a representative (Designated Representative) responsible for communications with DFG and overseeing compliance with this ITP. The Permittee shall notify DFG in writing prior to commencement of channel-, ground-, or vegetation-disturbing activities of the Designated Representative's name, business address, and contact information, and shall notify DFG in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.

5.3. Designated Biologist. At least 30 days before initiating channel-, ground-, or vegetation-disturbing activities, Permittee shall submit to DFG in writing the name, qualifications, business address, and contact information for a biological monitor (Designated Biologist). The Designated Biologist shall be knowledgeable and experienced in the biology and natural history of the Covered Species. The Designated Biologist shall be responsible for monitoring Project activities and/or channel-, ground-, or vegetation-disturbing activities in areas of Covered Species' habitat to help minimize or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain DFG approval of the Designated Biologist prior to the commencement of Project-related activities that may result in the incidental take of the Covered Species.

5.4. Designated Biologist Authority. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall have authority to immediately stop any activity that is not in compliance with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species or fully protected species. Neither the Designated Biologist nor DFG shall be liable for any costs incurred in complying with the Conditions of Approval, including cease-work orders issued by DFG.

5.5. Education Program. Permittee shall conduct an education program for all persons employed or otherwise working on the Project site prior to performing any work on-site. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status under CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Copies of this ITP shall be maintained at the worksite. Permittee shall prepare and distribute wallet-sized cards or a fact

sheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to DFG upon request.

5.6. Firearms and Dogs: Permittee shall prohibit firearms and domestic dogs from the Project site and site access routes during Project activities and development of the Project, except those in the possession of authorized security personnel or local, State, or Federal law enforcement officials.

5.7. Delineation of Property Boundaries: Prior to initiating channel-, ground-, or vegetation-disturbing Project activities along each part of the route in active construction, Permittee shall clearly delineate right-of-way and/or property boundaries of the current Project work area or areas with fencing, stakes, or flags and shall similarly delineate the limits of Project activities. Permittee shall restrict all project activities to within the fenced, staked or flagged areas. Permittee shall maintain all fencing, stakes and flags until the completion of Project activities in that area.

5.8. Delineation of Habitat. Permittee shall clearly delineate habitat of the Covered Species on the Project site with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat. Permittee shall designate Covered Species habitat adjacent to the work area as Environmentally Sensitive Areas (ESAs) on the construction plans and construction personnel and equipment shall not enter these areas. Permittee shall install ESA fencing prior to initiating vegetation clearing operations. The location of all ESA fencing shall be inspected and approved by DFG prior to vegetation removal.

5.9. Project Site Access. Project-related personnel shall access the Project site during Project activities using existing designated routes and shall not cross Covered Species' habitat outside of or en route to the Project site. Project-related vehicle traffic shall be restricted to established roads, staging, and parking areas. If Permittee determines construction of off-site routes for travel are necessary, Permittee shall contact DFG prior to carrying out such an activity. Construction of off-site routes for travel may require an amendment to this ITP if take of Covered Species incidental to such construction will occur. .

5.10. Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project site using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project boundaries unless specifically provided for in Condition 5.9 of this ITP. Staging of construction materials and equipment shall not occur within the regulatory floodway.

5.11. Flood Events. Permittee shall design and construct temporary bridges and other structures in the channel to pass the 100-year flood event. Permittee shall remove structures and materials not designed to withstand high flows from the channel prior to October 15.

5.12. Hazardous Waste. Permittee shall immediately stop/repair and clean up any leaks or spills of fuel, lubricants, or other materials that may be deleterious to fish, plant, or wildlife during Project activities at the time of occurrence. Permittee shall confine the storage and handling of hazardous materials to designated staging and refueling areas and shall properly contain and dispose of any unused or leftover hazardous products off-site.

5.13. Vehicle Inspection. Permittee shall ensure that vehicles and equipment operated within or adjacent to the stream channel are free of oil or petroleum residues and are inspected and maintained on a daily basis to prevent leaks of materials that could be deleterious to aquatic life, wildlife, or riparian vegetation.

5.14. DFG Access. Permittee shall provide DFG staff with reasonable access to the Project site and mitigation lands under Permittee control, and shall otherwise fully cooperate with DFG efforts to verify compliance with or effectiveness of mitigation measures set forth in the ITP.

5.15. Refuse Removal. Upon completion of Project activities, Permittee shall remove from the Project site and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

6. Monitoring, Notification and Reporting Provisions:

6.1. Notification Prior to Commencement. Permittee shall notify DFG 14 calendar days before initiating channel-, ground-, or vegetation-disturbing activities and shall document compliance with all pre-Project Conditions of Approval before initiating channel-, ground-, or vegetation-disturbing activities.

6.2. Notification of Non-compliance. Permittee shall immediately notify DFG in writing if it determines that it is not in compliance with any Condition of Approval of this ITP, including, but not limited to, any actual or anticipated failure to implement mitigation measures within the time periods indicated in this ITP and/or the MMRP. Permittee shall report any non-compliance with the ITP during Project activities to DFG within 24 hours.

6.3. Compliance Monitoring. The Designated Biologist shall be on-site daily while Project activities, including all pile installation, dewatering, channel-, vegetation-, or ground-disturbing activities, that may affect Covered Species are taking place to: (1) minimize incidental take of the Covered Species; (2) check for compliance with all mitigation and avoidance measures; (3) check all exclusion zones; and (4) ensure that signs, stakes, and fencing are intact, and that human activities are restricted outside of these protective zones. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species, survey results, and monitoring activities required by this ITP. The Designated Biologist shall conduct compliance inspections a minimum of once per month during periods of inactivity and after clearing, grubbing, and grading are completed.

6.4. Quarterly Compliance Report. Permittee shall compile the observation and inspection records identified in Condition 6.3 into a Quarterly Compliance Report and submit it to DFG along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to DFG's Regional Office at the address listed in the Notices section of this ITP or via e-mail to DFG's Regional Representative. At the time of this ITP's approval, the DFG Regional Representative is Staff Environmental Scientist, Craig Martz (email address: cmartz@dfg.ca.gov). DFG may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If DFG determines the reporting schedule is inadequate, DFG will notify Permittee by letter of the new reporting schedule.

6.5. Annual Status Report. Permittee shall provide DFG with an Annual Status Report (ASR) no later than January 31 of every year, beginning with issuance of the ITP and continuing until DFG accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports identified in Condition 6.4, (2) a general description of the status of the Project site and Project activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; and (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and mitigating Project impacts on the Covered Species.

6.6. Final Mitigation Report. No later than 60 days after completion of the Project, including completion of all mitigation measures, Permittee shall provide DFG with a Final Mitigation Report. The Final Mitigation Report shall be prepared by the Designated Biologist and shall include, at a minimum: (1) a summary of all Monthly/Quarterly Compliance Reports and all ASRs, (2) a copy of the table in the

MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) dates of Project activities; (6) an assessment of the effectiveness of the ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.

6.7. Notification of Species Mortality. If any SONCC coho salmon are killed by a Project-related activity, or if any SONCC coho salmon are otherwise found dead within the Project site, Permittee shall immediately notify the Designated Biologist. The Designated Biologist or Designated Representative shall provide initial notification to DFG by calling the Regional Office at (530) 225-2300. The initial notification to DFG shall include information regarding the location, species, number of animals injured or killed, and the ITP Number. Following initial notification, Permittee shall send DFG a written report within 2 calendar days. The report shall include the date and time of the finding or incident, location of the carcass, and, if possible, provide a photograph, explanation as to cause of death, and any other pertinent information.

7. Take Minimization Measures:

The following requirements are intended to ensure the minimization of incidental take of Covered Species that are discovered on the Project site, both prior to channel-, ground-, or vegetation-disturbing activities and during all Project activities. Permittee shall implement and adhere to the following conditions to minimize take of Covered Species:

7.1. Work in Streams. Permittee shall confine all construction work within the bed, channel, or banks of any stream to the period of June 15 through October 15. If the stream is dry, and advance written approval is obtained from DFG, then Permittee may conduct work outside of the June 15 through October 15 construction window.

7.2. Removal of Riparian Vegetation. Notwithstanding Condition 7.1 above, Permittee shall ensure that removal of above-ground riparian vegetation from the streambanks only occurs between September 1 and January 31 of any year to avoid impacts to migratory birds. Permittee shall remove all cleared material/vegetation from the riparian/stream zone and dispose of it properly. Permittee shall ensure that disturbance or removal of riparian vegetation does not exceed the minimum necessary to complete construction. Where feasible, hand tools (chain saws, etc.) shall be used to trim vegetation to the extent necessary to gain access to work sites. Whenever possible, root systems shall be left intact to facilitate more rapid recovery following temporary construction impacts.

7.3. Pile Driving. Permittee shall confine all pile driving activities, including installation of sheet piles, temporary and permanent piles located within the channel or below the top of bank, to the period between June 15 through October 15. Permittee shall also confine installation of permanent bridge or viaduct piles within 50 feet of the channel to the period between June 15 through October 15. Contingent on the results of hydroacoustic monitoring, the Permittee may install permanent bridge or viaduct piles within 50 feet of the channel outside this work window provided a written request is made to DFG. Written approval from DFG for the work window variance must be received by the Permittee prior to the start or continuation of work outside the June 15 through October 15 work window.

7.4. Hydroacoustic Monitoring. If surface water is present within the channel, Permittee shall conduct hydroacoustic monitoring to document peak sound pressure levels and cumulative sound exposure levels during all permanent pile driving activities in the channel or within 50 feet of the channel. Permittee shall also monitor the driving of temporary trestle and falsework piles below the top of bank. If underwater sound pressure levels for each pile type and size do not vary to a large degree, the Permittee may request written approval from DFG to discontinue hydroacoustic monitoring. Permittee shall submit a Hydroacoustic Monitoring Plan for review and approval by DFG no later than March 15, 2011.

7.5. Coffer Dams. Permittee shall contain permanent pile driving activities in the stream channel within coffer dams. A bubble curtain or other approved attenuation device shall be used to reduce sound exposure levels.

7.6. Fish Capture. Prior to conducting temporary or permanent pile driving activities within the channel, or within 50 feet of the channel, Permittee shall exclude, remove and relocate fish from coffer dams and those portions of the stream where $SEL_{Cumulative}$ are predicted to exceed the interim injury criteria of 183 dB. Permittee shall use one or more of the following NMFS-approved methods to capture SONCC coho and other salmonids: dip net, seine, throw net, or electrofishing.

7.7. Stream Dewatering. If pile driving activities are expected to exceed interim $SEL_{Cumulative}$ threshold levels for more than two consecutive days, Permittee shall dewater the affected stream reach in lieu of using block nets to exclude fish. During dewatering, Permittee shall incrementally divert flows in the affected reach to facilitate fish capture and relocation. Flows shall be reduced over a minimum 4-hour period in the following increments: 50%, 75%, 90%, and 100%.

7.8. Fish Relocation. Fish relocation activities shall be overseen by the Designated Biologist and shall be conducted by qualified fisheries biologists that are authorized by NMFS and DFG to handle listed salmonids. Captured fish shall be segregated by size to minimize predation, and maintained in cool, well-oxygenated water until released to

suitable habitat outside the construction impact area.

7.9. Fish Passage. Permittee shall ensure that installation of permanent culverts, bridges, grade control structures, instream habitat enhancement features, and other channel modifications do not impede the passage of fish up or down stream. Permittee shall submit detailed designs for work within the stream channel to DFG for review and approval no later than August 1, 2010.

7.10. Grass Population Study. Prior to initiating vegetation- or ground-disturbing activities, Permittee shall fund a two-year study of North Coast semaphore grass populations in the Little Lake Valley with the goal of characterizing ecological requirements for the species. The study shall investigate the soils, hydrology, and associated species at sites occupied by North Coast semaphore grass and at adjacent, unoccupied sites to identify potentially suitable areas for plant establishment, guide future management of HM Lands and determine the potential for expanding current populations.

7.11. Grass Seed Collection. Prior to initiating vegetation- or ground-disturbing activities, Permittee shall harvest mature North Coast semaphore grass seed from the area that will be directly impacted by construction. Seed shall be collected at the appropriate time of year by a botanist with a valid DFG scientific collecting permit that covers the species, or a MOU with DFG authorizing seed collection for the Project. If the property is being grazed during the growing season prior to collection, Permittee shall install temporary fencing to exclude cattle from the population.

7.12. Grass Curation and Propagation. Permittee shall sponsor the permanent curation of a portion of the collected seed by an organization participating in the Center for Plant Conservation's National Collection of Endangered Plants. Permittee shall contract with a qualified native plant nursery to propagate the remaining seed for outplanting as container stock within suitable, protected habitat adjacent to the impacted population.

7.13. Grass Relocation. Permittee shall salvage mature North Coast semaphore grass plants and/or rhizomes from the permanent impact area and relocate them to suitable, protected habitat adjacent to the impact area. Plants and/or rhizomes shall be transplanted by a qualified botanist in the late fall or early winter after soils have been moistened by the first seasonal rains. Permittee shall monitor the transplants, container stock, and adjacent natural plants within the population for a minimum period of 10 years following planting.

7.14. Surface Hydrology. Permittee shall maintain the existing surface hydrology of the remaining North Coast semaphore grass population within the Project right-of-way to the greatest extent possible by (1) installing two culverts to convey surface flows

through the roadway embankment and (2) capturing roadway runoff and preventing it from discharging into adjacent occupied habitat.

7.15. Grass Population Protection. Permittee shall provide for the long-term protection of the remaining population of North Coast semaphore grass within the Project right-of-way and shall add the location to the current database of Environmentally Sensitive Areas (ESAs) in Caltrans District 1. ESA paddles will be installed within the right-of-way to alert maintenance personnel and protect the population from inadvertent disturbance.

7.16. Grass Population Maintenance. In consultation with DFG and a qualified botanist, Permittee shall develop a maintenance prescription for the right-of-way that is compatible with the ecological requirements of North Coast semaphore grass. The prescription shall specify mowing schedules and restrict incompatible activities such as blading or herbicide application. Permittee shall ensure that local maintenance personnel understand and implement the management prescription for this section of right-of-way.

8. Mitigation Measures/Compensation for Take:

In order to mitigate for the taking of juvenile SONCC coho salmon and the temporary and permanent impacts of the Project on stream habitat for the species within the Outlet Creek Hydrologic Sub-Area, the Permittee shall implement a fish passage improvement project to restore access to spawning and rearing habitat on Ryan Creek. Permittee shall provide the following:

8.1. Fish Barrier Removal Plan. In consultation with DFG, Permittee shall prepare draft and final designs for a project to remediate existing barriers to fish passage at the South Fork (PM 52.25) and North Fork (PM 52.36) Ryan Creek culverts on U.S. 101. Draft plans for both crossings shall be submitted to DFG for review no later than June 30, 2011. Final plans shall be prepared and submitted to DFG for approval no later than June 30, 2012.

8.2. Fish Barrier Removal Completion. Permittee shall complete construction of the South Fork Ryan Creek culvert remediation project no later than October 31, 2013.

8.3. Fish Barrier Removal Funding. Permittee shall prepare cost estimates for the passage improvement work on the North Fork Ryan Creek culvert based on the final design prepared under Condition 8.1 above and shall apply for funding to complete this work in a timely manner.

In addition to the fish passage improvement project described above, DFG has determined that permanent protection and perpetual management of compensatory habitat is necessary and required under CESA to fully mitigate impacts of the taking on Covered

Species that will result from implementing the Project. This determination is based on factors including an assessment of the quality of the habitat at the Project site and the increased habitat value for the Covered Species that can be achieved through land management at the mitigation location.

8.4. HM Lands Acquisition and Management. Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of this ITP if security is provided pursuant to Condition 9, Permittee shall acquire and permanently preserve 1,486 acres of HM Lands for the Covered Species identified in the final MMP. Of this total, Permittee shall create 47.57 acres, enhance 48.51 acres, and preserve 100.40 acres of riparian habitat on approximately 1,416 acres of HM Lands to fully mitigate for the incidental taking of SONCC coho salmon that will occur as a result of the temporary and permanent habitat loss and mortality of individuals related to other Project activities. In addition, Permittee shall acquire, restore, and permanently preserve four extant populations of North Coast semaphore grass totaling 5.094 acres on an additional 70 acres of HM Lands to fully mitigate for the incidental taking of North Coast semaphore grass that will occur as a result of Project activities. A restoration and management plan for the HM Lands shall be prepared and submitted to DFG for approval within 18 months after the issuance of this ITP. The plan shall specify vegetation management actions and enhancement measures designed to result in a net expansion of existing North Coast semaphore grass populations on the HM Lands.

DFG estimates that acquisition of appropriate HM Lands to mitigate for impacts to Covered Species will cost approximately $7,800/acre for 1,486 acres for a total of approximately **$11,590,800.00**. As part of this condition, Permittee shall:

8.4.1. Transfer fee title to the HM Lands to the Mendocino County Resource Conservation District (MCRCD) or another entity under terms approved by DFG. If fee title is held by an entity other than DFG, a conservation easement in a form approved by DFG shall be recorded on title of the HM Lands. The grantee of the conservation easement may be DFG, a DFG-approved non-profit organization qualified pursuant to California Government Code section 65965, or a public agency approved by DFG and authorized to hold conservation easements. If a DFG-approved non-profit organization or approved public agency is grantee on a conservation easement, DFG shall be named third party beneficiary;

8.4.2. Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents specified in Attachment 2 and/or requested by the DFG Regional Representative. The Permittee shall be responsible for all costs associated with obtaining and providing the required documents. All documents conveying the HM Lands and all conditions of title are

subject to the approval of DFG, the Wildlife Conservation Board and if applicable, the Department of General Services;

8.4.3. Provide for the initial protection and enhancement of HM Lands as described in the final MMP. DFG estimates that initial protection and enhancement will cost approximately $4,590.40/acre for 1,416 acres of HM Lands for SONCC coho salmon, for a total of $6,500,000.00. Additionally, DFG estimates that initial protection and enhancement will cost approximately $6,647.45/acre for 70 acres of HM Lands for North Coast semaphore grass, for a total of $465,321.00. Total initial protection and enhancement costs are estimated at **$6,965,321.00**.

8.4.4. Provide for the perpetual management of the HM Lands to benefit the Covered Species by doing the following:

Conduct a Property Analysis Record (PAR) or equivalent analysis for the HM Lands that have been identified to determine the appropriate endowment amount to fund the in-perpetuity management of the 1,486 acres of required HM Lands. Permittee shall provide the required endowment to DFG after DFG reviews and approves the PAR. Permittee shall demonstrate that sufficient funds have been allocated for the endowment as described in Condition 9 below.

Interest from the endowment amount shall be available for reinvestment in the principal and for the long-term operation, management, and protection of the HM Lands, including reasonable administrative overhead, biological monitoring, improvements to biological carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the HM Lands. Monies received by DFG pursuant to this Condition may be deposited in a special deposit account established pursuant to Fish and Game Code section 13014. DFG may pool the endowment with other endowments for the operation, management and protection of HM Lands for local populations of the Covered Species. Endowment funds provided as described above may alternatively be held by a DFG-approved non-profit organization qualified to hold endowment funds;

8.4.5. Reimburse DFG for reasonable expenses incurred during title and documentation review, expenses incurred from other state agency reviews, and overhead related to transfer of HM Lands to DFG. DFG estimates that this Project will create an additional cost to DFG of no more than $3,000 for every fee title deed or easement processed.

9. Performance Security:

9.1. Funding Assurance. Permittee may proceed with channel-, ground-, or vegetation-

disturbing activities before completing all of the mitigation, monitoring and reporting activities required in the Conditions of Approval of this ITP only if Permittee ensures funding to complete those activities by providing to DFG, prior to commencing ground- or vegetation disturbing activities or within 30 days after the effective date of this ITP, whichever occurs first, written documentation that the Permittee has allocated sufficient funds, acceptable to and approved by DFG, in the Expenditure Authorization for the Project to ensure implementation of the Conditions of Approval of this ITP.

The written documentation shall identify and display in itemized form, at a minimum, the following estimated costs of implementing the ITP's mitigation, monitoring, and reporting requirements, which total **$34,556,121.00**. The written documentation submitted by the Permittee to satisfy this Condition shall be on official letterhead and signed by both the District Deputy Director of Project Management and the District Deputy Director of Environment, and shall include a statement that the funds identified have been allocated specifically for the purpose of fulfilling the Permittee's mitigation obligations associated with this ITP and will not be redirected for other Project purposes.

Even if the Funding Assurance is provided, Permittee must complete the required acquisition, protection, and transfer of all HM Lands and record the required conservation easements pursuant to Condition 8.4.1 within 18 months of the effective date of this ITP.

9.1.1. Project design costs for fish passage improvement at the existing U.S. 101 culverts on the North and South Forks of Ryan Creek, as well as implementation costs for the remediation work on the South Fork Ryan Creek crossing, estimated at **$4,000,000.00**;

9.1.2. Land acquisition costs for impacts to habitat, calculated at $7,800.00/acre for 1,486 acres: **$11,590,800.00**;

9.1.3. Costs of enhancing HM Lands, calculated at $4,590.40/acre for 1416 acres: $6,500,000.00; and $6,647.45/acre for 70 acres: $465,321.00 for a total enhancement cost of **$6,965,321.00;**

9.1.4. Endowment estimate, calculated at $8,075.37/acre for 1,486 acres: **$12,000,000.00**[4]**.**

9.2. Date of Acquisition of HM Lands. Permittee must complete the required acquisition, protection and transfer of all HM Lands and record the required conservation

[4] This figure represents an estimate of the total endowment principal. The actual endowment amount shall be based on a Property Analysis Record or equivalent analysis for individual HM Lands as described in Condition 7.4.4 of this ITP.

easements in favor of DFG within 18 months of the effective date of this ITP.

Amendment:
This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable law. This ITP may also be amended without the concurrence of the Permittee as required by law, including if DFG determines that continued implementation of the Project under existing ITP conditions would jeopardize the continued existence of the Covered Species or that Project changes or changed biological conditions necessitate an ITP amendment to ensure that impacts to the Covered Species are minimized and fully mitigated.

Stop-Work Order:
DFG may issue Permittee a written stop-work order to suspend any activity covered by this ITP for an initial period of up to 25 days to prevent or remedy a violation of ITP conditions (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. Permittee shall comply with the stop-work order immediately upon receipt thereof. DFG may extend a stop-work order under this provision for a period not to exceed 25 additional days, upon written notice to the Permittee. DFG shall commence the formal suspension process pursuant to California Code of Regulations, Title 14, section 783.7, within five working days of issuing a stop-work order.

Compliance with Other Laws:
This ITP contains DFG's requirements for the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable state, federal, and local laws.

Notices:
The Permittee shall deliver the fully executed duplicate original ITP by first class mail or overnight delivery to the following address:

Habitat Conservation Planning Branch
California Department of Fish and Game
Attention: CESA Permitting Program
1416 Ninth Street, Suite 1260
Sacramento, CA 95814

Written notices, reports and other communications relating to this ITP shall be delivered to DFG by first class mail at the following addresses, or at addresses DFG may subsequently provide the Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081-2010-007-01) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

Mark C. Stopher, Acting Regional Manager
601 Locust Street
Redding, CA 96001
Telephone (530) 225-2275
Fax (530) 225-2381

Copy of cover without attachment(s) to:

Office of the General Counsel
California Department of Fish and Game
1416 Ninth Street, 12th Floor
Sacramento, CA 95814

And:

Habitat Conservation Planning Branch
California Department of Fish and Game
1416 Ninth Street, Suite 1260
Sacramento, CA 95814

Unless Permittee is notified otherwise, DFG's Regional Representative for purposes of addressing issues that arise during implementation of the ITP is:

Craig Martz
601 Locust Street
Redding, CA 96001
Telephone (530) 225-2281
Fax (530) 225-0324

Compliance with CEQA:
DFG's issuance of the ITP is subject to the California Environmental Quality Act (CEQA). DFG is a responsible agency under CEQA with respect to the ITP because of prior environmental review of the Project by the California Department of Transportation as lead agency for the Project. (See generally Pub. Resources Code, §§ 21067, 21069.) The lead agency's prior environmental review of the Project is set forth in the October 2006 Final Environmental Impact Statement/Environmental Impact Report (SCH No. 1990030006) certified by the California Department of Transportation on December 15, 2006, and the Supplemental Environmental Impact Report certified by the California Department of Transportation on May 19, 2010. At the time the lead agency certified the EIR and Supplemental EIR and approved the Project it also adopted all mitigation measures described in the EIR and Supplemental EIR as Conditions of Project Approval.

In fulfilling its obligations as a responsible agency, DFG's obligations under CEQA are more limited than the lead agency. DFG, in particular, is responsible for considering only the effects of those activities involved in the Project which it is required by law to carry out or approve and mitigating or avoiding only the direct or indirect environmental effects of those parts of the Project which it decides to carry out, finance, or approve. (Pub. Resources Code, § 21002.1, subd. (d); CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).)[5] Because DFG's exercise of discretion is limited to issuance of the ITP, DFG is responsible under CEQA for considering only the environmental effects that fall within DFG's permitting authority under CESA.

This ITP, along with DFG's related CEQA findings that are available as a separate document, provide evidence of DFG's consideration of the lead agency's EIR and Supplemental EIR for the Project and the environmental effects related to issuance of the ITP. (CEQA Guidelines, § 15096, subd. (f).) DFG finds that issuance of the ITP will not result in any previously undisclosed potentially significant effects on the environment or a substantial increase in the severity of any potentially significant environmental effects previously disclosed by the lead agency. Furthermore, to the extent the potential for such effects on the Covered Species exists, DFG finds that adherence to and implementation of the conditions of Project approval adopted by the lead agency, as well as adherence to and implementation of the Conditions of Approval imposed by DFG through the issuance of this ITP, will avoid or reduce to below a level of significance any such potential effects. DFG consequently finds that issuance of the ITP will not result in any significant, adverse impacts on the environment.

Findings under CESA:
These findings are intended to document DFG's compliance with the specific findings requirements set forth in CESA and related regulations. (Fish & G. Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds, (a)-(b), 783.5, subd. (c)(2).)

DFG finds that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs under CESA:

(1) Take of Covered Species as defined in the ITP will be incidental to the otherwise lawful activities covered under the ITP;

(2) Impacts of the taking of the Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP. Measures include: (1) permanent habitat protection; (2) establishment of avoidance zones; (3) worker education; and (4) Monthly Compliance Reports. DFG evaluated the quality of the habitat on the Project site, the scope and extent of direct impacts, the scope and extent of indirect impacts, and other relevant information available to DFG or provided by the Permittee. Based on this evaluation, DFG

[5] The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

determined that the protection and management in perpetuity of 1,486 acres of compensatory habitat that is contiguous with other protected Covered Species habitat and/or is of higher quality than the habitat being destroyed by the Project, along with the minimization, monitoring, reporting, and funding requirements of this ITP fully mitigates the impacts of the taking caused by the Project;

(3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the taking authorized by this ITP;

(4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;

(5) All required measures are capable of successful implementation;

(6) The ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;

(7) Permittee has ensured adequate funding to implement the measures required by the ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and

(8) Issuance of the ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (a) known population trends; (b) known threats to the species; and (c) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, DFG's finding is based, in part, on DFG's express authority to amend the terms and conditions of the ITP without concurrence of the Permittee as necessary to avoid jeopardy and as required by law.

Attachments:

FIGURE 1	Project Location
FIGURE 1-2a	Overview of Project Features
ATTACHMENT 1	Mitigation Monitoring and Reporting Program
ATTACHMENT 2	Habitat Management Land Acquisition Checklist

ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND GAME

on 7/9/2010.

Mark C. Stopher
Acting Regional Manager
NORTHERN REGION

ACKNOWLEDGMENT

The undersigned: 1) warrants that he or she is acting as a duly authorized representative of the Permittee, 2) acknowledges receipt of this ITP, and 3) agrees on behalf of the Permittee to comply with all terms and conditions of the ITP.

By: _____ Date: 7/14/2010

Printed Name: David G. Kelley Title: Project Manager

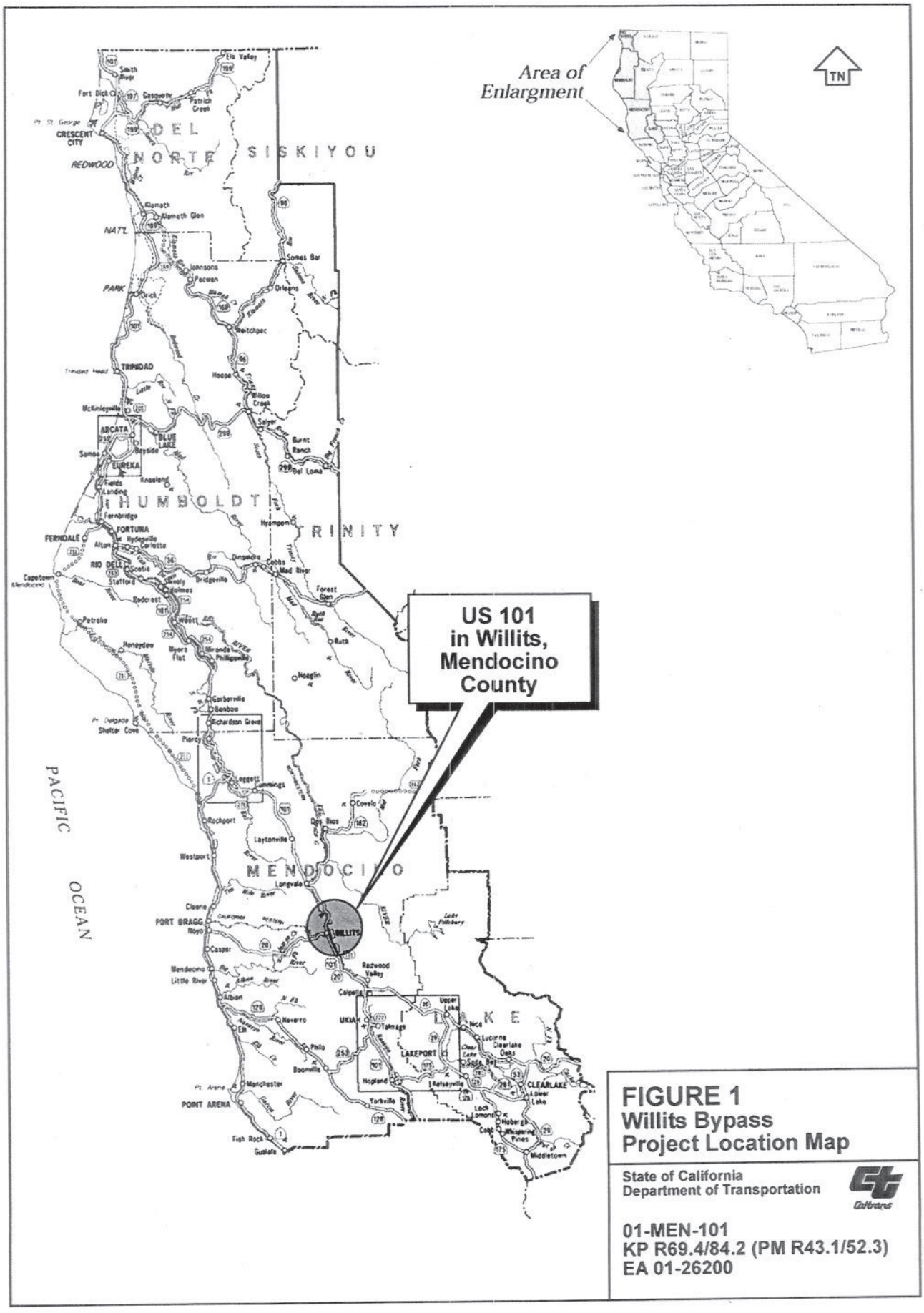

FIGURE 1
Willits Bypass Project Location Map

State of California
Department of Transportation

Caltrans

01-MEN-101
KP R69.4/84.2 (PM R43.1/52.3)
EA 01-26200

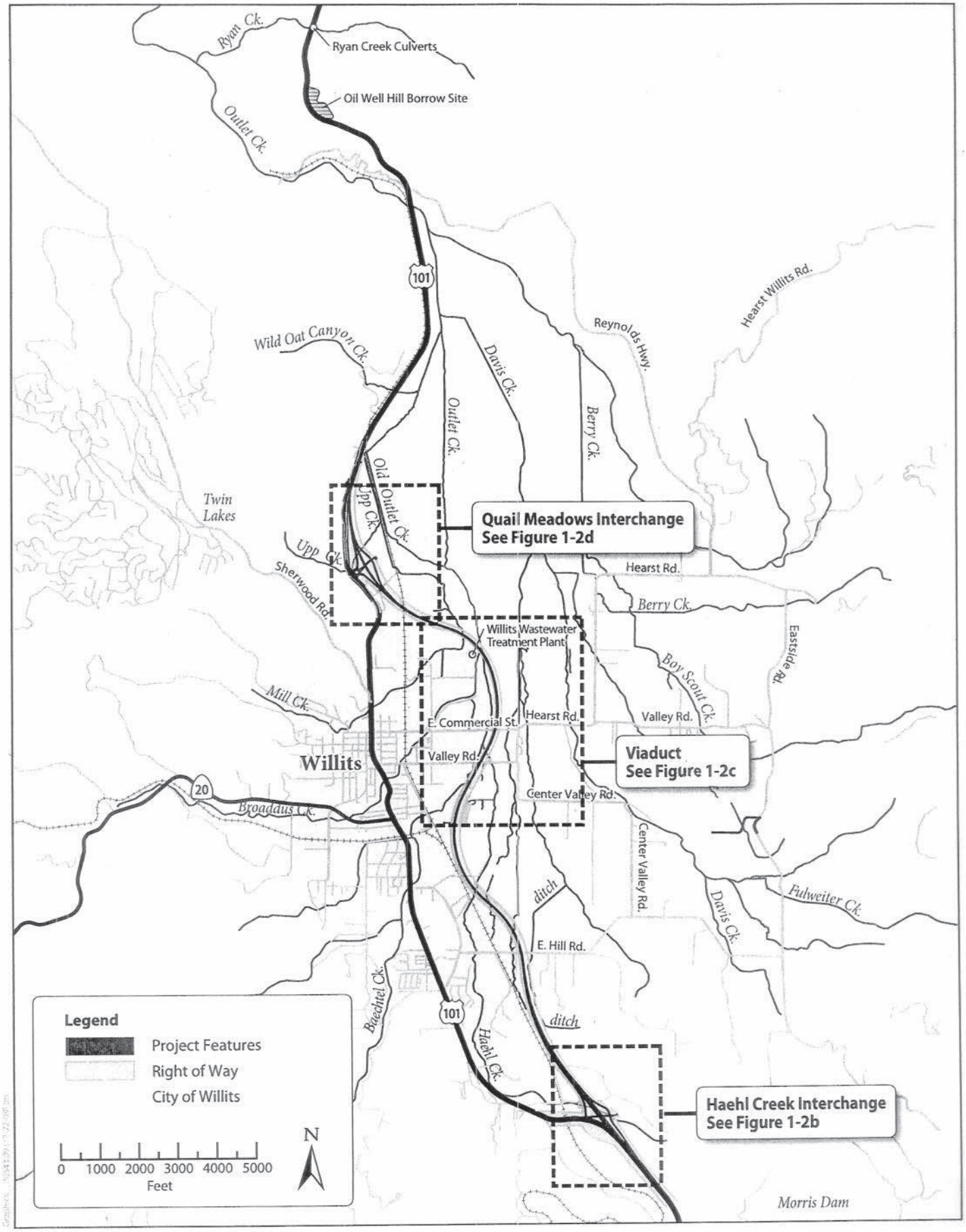

Figure 1-2a
Project Features—Overview Phase 1

Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND GAME
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
CALIFORNIA ENDANGERED SPECIES ACT

INCIDENTAL TAKE PERMIT NO. 2081-2010-007-01

PERMITTEE: **California Department of Transportation**

PROJECT: **Willits Bypass Project**

PURPOSE OF THE MMRP

The purpose of the MMRP is to ensure that the impact minimization and mitigation measures required by the Department of Fish and Game (DFG) for the above-referenced Project are properly implemented, and thereby to ensure compliance with section 2081(b) of the Fish and Game Code and section 21081.6 of the Public Resources Code. A table summarizing the mitigation measures required by DFG is attached. This table is a tool for use in monitoring and reporting on implementation of mitigation measures, but the descriptions in the table do not supersede the mitigation measures set forth in the California Incidental Take Permit (ITP) and in attachments to the ITP, and the omission of a ITP requirement from the attached table does not relieve the Permittee of the obligation to ensure the requirement is performed.

OBLIGATIONS OF PERMITTEE

Mitigation measures must be implemented within the time periods indicated in the table that appears below. Permittee has the primary responsibility for monitoring compliance of all mitigation measures and for reporting to DFG on the progress in implementing those measures. These monitoring and reporting requirements are set forth in the ITP itself and are summarized at the front of the attached table.

VERIFICATION OF COMPLIANCE, EFFECTIVENESS

DFG may, at its sole discretion, verify compliance with any mitigation measure or independently assess the effectiveness of any mitigation measure.

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Source, Implementation Schedule, Responsible Party, and Status/Date/Initials. The Mitigation Measure column summarizes the mitigation requirements of the ITP. The Source column identifies the ITP condition that sets forth the mitigation measure. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure. The Status/Date/Initials column shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report, and must identify the implementation status of each mitigation measure, the date that status was determined, and the initials of the person determining the status.

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEFORE DISTURBING SOIL OR VEGETATION					
1	Mitigation and Monitoring Proposal. Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Willits Bypass Project Final Mitigation and Monitoring Proposal (MMP) dated June 8, 2010, and any revisions to the MMP subsequently approved by DFG. Prior to initiating channel-, vegetation-, or ground-disturbing activities, and no later than December 31, 2010, Permittee shall submit a detailed mitigation plan to DFG for review and approval that will be incorporated into the MMP. The plan shall include (1) a detailed description of the baseline condition of each parcel of habitat mitigation (HM) Lands acquired to offset impacts to the Covered Species, (2) a detailed description of the measures that will be used to restore and enhance the ecological functions of the HM Lands, including final design and planting details for habitat creation, revegetation, and enhancement actions, (3) a discussion of the parameters that will be monitored to determine changes in ecological functions, including the frequency of monitoring, methods that will be used, and criteria used to determine success, (4) an adaptive management plan to be implemented in the event that expected results are not achieved, and (5) a long-term plan for managing and maintaining the HM lands after success criteria have been met.	ITP Condition #5.1	Before commencing channel- vegetation- or ground-disturbing activities and no later than December 31, 2010	Permittee	
2	Designated Representative. Before initiating channel-, ground-, or vegetation-disturbing Project activities, Permittee shall designate a representative (Designated Representative) responsible for communications with DFG and overseeing compliance with this ITP. The Permittee shall notify DFG in writing prior to commencement of channel-, ground-, or vegetation-disturbing activities of the Designated Representative's name, business address, and contact information, and shall notify DFG in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.	ITP Condition # 5.2	Before commencing channel- ground- or vegetation-disturbing activities/ Entire Project	Permittee	
3	Designated Biologist. At least 30 days before initiating channel-, ground-, or vegetation-disturbing activities, Permittee shall submit to DFG in writing the name, qualifications, business address, and contact information for a biological monitor (Designated Biologist). The Designated Biologist shall be knowledgeable and experienced in the biology and natural history of the Covered Species. The Designated Biologist shall be responsible for monitoring Project activities and/or channel-, ground-, or vegetation-disturbing activities in areas of Covered Species' habitat to help minimize or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain DFG approval of the Designated Biologist prior to the commencement of Project-related activities that may result in the incidental take of the Covered Species.	ITP Condition # 5.3	At least 30 days before commencing ground- or vegetation-disturbing activities	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
4	Education Program. Permittee shall conduct an education program for all persons employed or otherwise working on the Project site prior to performing any work on-site. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status under CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Copies of this ITP shall be maintained at the worksite. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to DFG upon request.	ITP Condition # 5.5	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
5	Firearms and Dogs: Permittee shall prohibit firearms and domestic dogs from the Project site and site access routes during Project activities and development of the Project, except those in the possession of authorized security personnel or local, State, or Federal law enforcement officials.	ITP Condition # 5.6	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
6	Delineation of Property Boundaries: Prior to initiating channel-, ground-, or vegetation-disturbing Project activities along each part of the route in active construction, Permittee shall clearly delineate right-of-way and/or property boundaries of the current Project work area or areas with fencing, stakes or flags and shall similarly delineate the limits of Project activities. Permittee shall restrict all project activities to within the fenced, staked or flagged areas. Permittee shall maintain all fencing, stakes and flags until the completion of Project activities in that area.	ITP Condition # 5.7	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
7	Delineation of Habitat. Permittee shall clearly delineate habitat of the Covered Species on the Project site with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat. Permittee shall designate Covered Species habitat adjacent to the work area as Environmentally Sensitive Areas (ESAs) on the construction plans and construction personnel and equipment shall not enter these areas. Permittee shall install ESA fencing prior to initiating vegetation clearing operations. The location of all ESA fencing shall be inspected and approved by DFG prior to vegetation removal.	ITP Condition # 5.8	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
8	Notification Prior to Commencement. Permittee shall notify DFG 14 calendar days before initiating channel-, ground-, or vegetation-disturbing activities and shall document compliance with all pre-Project Conditions of Approval before initiating channel-, ground-, or vegetation-disturbing activities.	ITP Condition # 6.1	Before commencing ground- or vegetation-disturbing activities	Permittee	
9	Grass Population Study. Prior to initiating vegetation- or ground-disturbing activities, Permittee shall fund a two-year study of North Coast semaphore grass populations in the Little Lake Valley with the goal of characterizing ecological requirements for the species. The study shall investigate the soils, hydrology, and associated species at sites occupied by North Coast semaphore grass and at adjacent, unoccupied sites to identify potentially suitable areas for plant establishment, guide future management of HM Lands and determine the potential for expanding current populations.	ITP Condition # 7.10	Before commencing ground- or vegetation-disturbing activities	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
10	Grass Seed Collection. Prior to initiating vegetation- or ground-disturbing activities, Permittee shall harvest mature North Coast semaphore grass seed from the area that will be directly impacted by construction. Seed shall be collected at the appropriate time of year by a botanist with a valid DFG scientific collecting permit that covers the species, or a MOU with DFG authorizing seed collection for the Project. If the property is being grazed during the growing season prior to collection, Permittee shall install temporary fencing to exclude cattle from the population.	ITP Condition # 7.11	Before commencing ground- or vegetation-disturbing activities	Permittee	
11	Grass Curation and Propagation. Permittee shall sponsor the permanent curation of a portion of the collected seed by an organization participating in the Center for Plant Conservation's National Collection of Endangered Plants. Permittee shall contract with a qualified native plant nursery to propagate the remaining seed for outplanting as container stock within suitable, protected habitat adjacent to the impacted population.	ITP Condition # 7.12	Before commencing ground- or vegetation-disturbing activities	Permittee	
12	Grass Population Maintenance. In consultation with DFG and a qualified botanist, Permittee shall develop a maintenance prescription for the right-of-way that is compatible with the ecological requirements of North Coast semaphore grass. The prescription shall specify mowing schedules and restrict incompatible activities such as blading or herbicide application. Permittee shall ensure that local maintenance personnel understand and implement the management prescription for this section of right-of-way.	ITP Condition # 7.16	Before commencing ground- or vegetation-disturbing activities	Permittee	
13	HM Lands Acquisition and Management. Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of this ITP if security is provided pursuant to Condition 9, Permittee shall acquire and permanently preserve 1,486 acres of HM Lands for the Covered Species identified in the final MMP. Of this total, Permittee shall create 47.57 acres, enhance 48.51 acres, and preserve 100.40 acres of riparian habitat on approximately 1,416 acres of HM Lands to fully mitigate for the incidental taking of SONCC coho salmon that will occur as a result of the temporary and permanent habitat loss and mortality of individuals related to other Project activities. In addition, Permittee shall acquire, restore, and permanently preserve four extant populations of North Coast semaphore grass totaling 5.094 acres on an additional 70 acres of HM Lands to fully mitigate for the incidental taking of North Coast semaphore grass that will occur as a result of Project activities. A restoration and management plan for the HM Lands shall be prepared and submitted to DFG for approval within 18 months after the issuance of this ITP. The plan shall specify vegetation management actions and enhancement measures designed to result in a net expansion of existing North Coast semaphore grass populations on the HM Lands. DFG estimates that acquisition of appropriate HM Lands to mitigate for impacts to Covered Species will cost approximately $7,800/acre for 1,486 acres for a total of approximately $11,590,800.00.	ITP Condition # 8.4	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	
14	Transfer fee title to the HM Lands to the Mendocino County Resource Conservation District (MCRCD) or another entity under terms approved by DFG. If fee title is held by an entity other than DFG, a conservation easement in a form approved by DFG shall be recorded on title of the HM Lands. The grantee of the conservation easement may be DFG, a DFG-approved non-profit organization qualified pursuant to California Government Code section 65965, or a public agency approved by DFG and authorized to hold conservation easements. If a DFG-approved non-profit organization or approved public agency is grantee on a conservation easement, DFG shall be named third party beneficiary;	ITP Condition # 8.4.1	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
15	Permittee shall provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents specified in Attachment 2 and/or requested by the DFG Regional Representative. The Permittee shall be responsible for all costs associated with obtaining and providing the required documents. All documents conveying the HM Lands and all conditions of title are subject to the approval of DFG, the Wildlife Conservation Board and if applicable, the Department of General Services.	ITP Condition # 8.4.2	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	
16	Permittee shall provide for the initial protection and enhancement of HM Lands as described in the final MMP. DFG estimates that initial protection and enhancement will cost approximately $4,590.40/acre for 1,416 acres of HM Lands for SONCC coho salmon, for a total of $6,500,000.00. Additionally, DFG estimates that initial protection and enhancement will cost approximately $6,647.45/acre for 70 acres of HM Lands for North Coast semaphore grass, for a total of $465,321.00. Total initial protection and enhancement costs are estimated at $6,965,321.00.	ITP Condition # 8.4.3	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	
17	Permittee shall provide for the perpetual management of the HM Lands to benefit the Covered Species by doing the following: Conduct a Property Analysis Record (PAR) or equivalent analysis for the HM Lands that have been identified to determine the appropriate endowment amount to fund the in-perpetuity management of the 1,486 acres of required HM Lands. Permittee shall provide the required endowment to DFG after DFG reviews and approves the PAR. Permittee shall demonstrate that sufficient funds have been allocated for the endowment as described in Condition 9 below. Interest from the endowment amount shall be available for reinvestment in the principal and for the long term operation, management, and protection of the HM Lands, including reasonable administrative overhead, biological monitoring, improvements to biological carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the HM Lands. Monies received by DFG pursuant to this Condition shall be deposited in a special deposit account established pursuant to Fish and Game Code section 13014. DFG may pool the endowment with other endowments for the operation, management and protection of HM Lands for local populations of the Covered Species. Endowment funds provided as described above may alternatively be held by a DFG-approved non-profit organization qualified to hold endowment funds;	ITP Conditions # 8.4.4	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	
18	Permittee shall reimburse DFG for reasonable expenses incurred during title and documentation review, expenses incurred from other state agency reviews, and overhead related to transfer of HM Lands to DFG. DFG estimates that this Project will create an additional cost to DFG of no more than $3,000 for every fee title deed or easement processed.	ITP Condition # 8.4.5	Prior to initiating channel- ground- or vegetation-disturbing Project activities, or no later than 18 months from the effective date of the ITP	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
18	Funding Assurance. Permittee may proceed with channel-, ground-, or vegetation-disturbing activities before completing all of the mitigation, monitoring and reporting activities required in the Conditions of Approval of this ITP only if Permittee ensures funding to complete those activities by providing to DFG, prior to commencing ground- or vegetation disturbing activities or within 30 days after the effective date of this ITP, whichever occurs first, written documentation that the Permittee has allocated sufficient funds, acceptable to and approved by DFG, in the Expenditure Authorization for the Project to ensure implementation of the Conditions of Approval of this ITP. The written documentation shall identify and display in itemized form, at a minimum, the following estimated costs of implementing the ITP's mitigation, monitoring, and reporting requirements, which total $34,556,121.00. The written documentation submitted by the Permittee to satisfy this Condition shall be on official letterhead and signed by both the District Deputy Director of Project Management and the District Deputy Director of Environment, and shall include a statement that the funds identified have been allocated specifically for the purpose of fulfilling the Permittee's mitigation obligations associated with this ITP and will not be redirected for other Project purposes. Even if the Funding Assurance is provided, Permittee must complete the required acquisition, protection and transfer of all HM Lands and record the required conservation easements pursuant to Condition 8.4.1 within 18 months of the effective date of this ITP. Project design costs for fish passage improvement at the existing U.S. 101 culverts on the North and South Forks of Ryan Creek, as well as implementation costs for the remediation work on the South Fork Ryan Creek crossing, estimated at $4,000,000.00; Land acquisition costs for impacts to habitat, calculated at $7,800.00/acre for 1,486 acres: $11,590,800.00; Costs of enhancing HM Lands, calculated at $4,590.40/acre for 1416 acres: $6,500,000.00; and $6,647.45/acre for 70 acres: $465,321.00 for a total enhancement cost of $6,965,321.00; Endowment estimate, calculated at $8,075.37/acre for 1,486 acres: $12,000,000.00. Date of Acquisition of HM Lands. Permittee must complete the required acquisition, protection and transfer of all HM Lands and record the required conservation easements in favor of DFG within 18 months of the effective date of this ITP.	ITP Condition # 9.1 and # 9.2	Prior to initiating channel- ground- or vegetation-disturbing Project activities.	Permittee	
DURING CONSTRUCTION					
19	Designated Biologist Authority. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall have authority to immediately stop any activity that is not in compliance with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species or fully protected species. Neither the Designated Biologist nor DFG shall be liable for any costs incurred in complying with the Conditions of Approval, including cease-work orders issued by DFG.	ITP Condition # 5.4	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
	Project Site Access. Project-related personnel shall access the Project site during Project activities using existing designated routes and shall not cross Covered Species' habitat outside of or en route to the Project site. Project-related vehicle traffic shall be restricted to established roads, staging, and parking areas. If Permittee determines construction of off-site routes for travel are necessary, Permittee shall contact DFG prior to carrying out such an activity. Construction of off-site routes for travel may require an amendment to this ITP if take of Covered Species incidental to such construction may occur.	ITP Condition # 5.9	Entire Project	Permittee	
	Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project site using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project boundaries unless specifically provided for in Condition 5.9 of this ITP. Staging of construction materials and equipment shall not occur within the regulatory floodway.	ITP Condition # 5.10	Entire Project	Permittee	
20	Flood Events. Permittee shall design and construct temporary bridges and other structures in the channel to pass the 100-year flood event. Permittee shall remove structures and materials not designed to withstand high flows from the channel prior to October 15.	ITP Condition # 5.11	Entire Project	Permittee	
	Hazardous Waste. Permittee shall immediately stop/repair and clean up any leaks or spills of fuel, lubricants, or other materials that may be deleterious to fish, plant, or wildlife during Project activities at the time of occurrence. Permittee shall confine the storage and handling of hazardous materials to designated staging and refueling areas and shall properly contain and dispose of any unused or leftover hazardous products off-site.	ITP Condition # 5.12	Entire Project	Permittee	
21	Vehicle Inspection. Permittee shall ensure that vehicles and equipment operated within or adjacent to the stream channel are free of oil or petroleum residues and are inspected and maintained on a daily basis to prevent leaks of materials that could be deleterious to aquatic life, wildlife, or riparian vegetation.	ITP Condition # 5.13	Entire Project	Permittee	
22	DFG Access. Permittee shall provide DFG staff with reasonable access to the Project site and mitigation lands under Permittee control, and shall otherwise fully cooperate with DFG efforts to verify compliance with or effectiveness of mitigation measures set forth in the ITP.	ITP Condition # 5.14	Entire Project	Permittee	
23	Notification of Non-compliance. Permittee shall immediately notify DFG in writing if it determines that it is not in compliance with any Condition of Approval of this ITP, including, but not limited to, any actual or anticipated failure to implement mitigation measures within the time periods indicated in this ITP and/or the MMRP. Permittee shall report any non-compliance with the ITP during Project activities to DFG within 24 hours.	ITP Condition # 6.2	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
24	Compliance Monitoring. The Designated Biologist shall be on-site daily while Project activities, including all pile installation, dewatering, channel-, vegetation-, or ground-disturbing activities that may affect Covered Species are taking place to: (1) minimize incidental take of the Covered Species; (2) check for compliance with all mitigation and avoidance measures; (3) check all exclusion zones; and (4) ensure that signs, stakes, and fencing are intact, and that human activities are restricted outside of these protective zones. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species, survey results, and monitoring activities required by this ITP. The Designated Biologist shall conduct compliance inspections a minimum of once per month during periods of inactivity and after clearing, grubbing, and grading are completed.	ITP Condition # 6.3	Entire Project	Permittee	
25	Quarterly Compliance Report. Permittee shall compile the observation and inspection records identified in Condition 6.3 into a Quarterly Compliance Report and submit it to DFG along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to DFG's Regional Office at the address listed in the Notices section of this ITP or via e-mail to DFG's Regional Representative. At the time of this ITP's approval, the DFG Regional Representative is Staff Environmental Scientist, Craig Martz (email address: cmartz@dfg.ca.gov). DFG may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If DFG determines the reporting schedule is inadequate, DFG will notify Permittee by letter of the new reporting schedule.	ITP Condition # 6.4	Entire Project	Permittee	
26	Annual Status Report. Permittee shall provide DFG with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of the ITP and continuing until DFG accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports identified in Condition 6.4, (2) a general description of the status of the Project site and Project activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; and (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and mitigating Project impacts on the Covered Species.	ITP Condition # 6.5	Entire Project	Permittee	
27	Notification of Species Mortality. If any SONCC coho salmon are killed by a Project-related activity, or if any SONCC coho salmon are otherwise found dead within the Project site, Permittee shall immediately notify the Designated Biologist. The Designated Biologist or Designated Representative shall provide initial notification to DFG by calling the Regional Office at (530) 225-2300. The initial notification to DFG shall include information regarding the location, species, number of animals injured or killed, and the ITP Number. Following initial notification, Permittee shall send DFG a written report within 2 calendar days. The report shall include the date and time of the finding or incident, location of the carcass, and if possible provide a photograph, explanation as to cause of death, and any other pertinent information.	ITP Condition # 6.7	Entire Project	Permittee	
28	Work in Streams. Permittee shall confine all construction work within the bed, channel, or banks of any stream to the period of June 15 through October 15. If the stream is dry, and advance written approval is obtained from DFG, then Permittee may conduct work outside of the June 15 through October 15 construction window.	ITP Condition # 7.1	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
29	Removal of Riparian Vegetation. Notwithstanding Condition 7.1 above, Permittee shall ensure that removal of above-ground riparian vegetation from the stream banks only occurs between September 1 and January 31 of any year to avoid impacts to migratory birds. Permittee shall remove all cleared material/vegetation from the riparian/stream zone and dispose of it properly. Permittee shall ensure that disturbance or removal of riparian vegetation does not exceed the minimum necessary to complete construction. Where feasible, hand tools (chain saws, etc.) shall be used to trim vegetation to the extent necessary to gain access to work sites. Whenever possible, root systems shall be left intact to facilitate more rapid recovery following temporary construction impacts.	ITP Condition # 7.2	Entire Project	Permittee	
30	Pile Driving. Permittee shall confine all pile driving activities, including installation of sheet piles, temporary and permanent piles located within the channel or below the top of bank, to the period between June 15 through October 15. Permittee shall also confine installation of permanent bridge or viaduct piles within 50 feet of the channel to the period between June 15 through October 15. Contingent on the results of hydroacoustic monitoring, the Permittee may install permanent bridge or viaduct piles within 50 feet of the channel outside this work window provided a written request is made to DFG. Written approval from DFG for the work window variance must be received by the Permittee prior to the start or continuation of work outside the June 15 through October 15 work window.	ITP Condition # 7.3	Entire Project	Permittee	
31	Hydroacoustic Monitoring. If surface water is present within the channel, Permittee shall conduct hydroacoustic monitoring to document peak sound pressure levels and cumulative sound exposure levels during all permanent pile driving activities in the channel or within 50 feet of the channel. Permittee shall also monitor the driving of temporary trestle and falsework piles below the top of bank. If underwater sound pressure levels for each pile type and size do not vary to a large degree, the Permittee may request written approval from DFG to discontinue hydroacoustic monitoring. Permittee shall submit a Hydroacoustic Monitoring Plan for review and approval by DFG no later than March 15, 2011.	ITP Condition # 7.4	Entire Project	Permittee	
32	Coffer Dams. Permittee shall contain permanent pile driving activities in the stream channel within coffer dams. A bubble curtain or other approved attenuation device shall be used to reduce sound exposure levels.	ITP Condition # 7.5	Entire Project	Permittee	
33	Fish Capture. Prior to conducting temporary or permanent pile driving activities within the channel, or within 50 feet of the channel, Permittee shall exclude, remove and relocate fish from coffer dams and those portions of the stream where cumulative sound exposure levels (SELCumulative) are predicted to exceed the interim injury criteria of 183 dB. Permittee shall use one or more of the following NMFS-approved methods to capture SONCC coho and other salmonids: dip net, seine, throw net, or electrofishing.	ITP Condition # 7.6	Entire Project	Permittee	
34	Stream Dewatering. If pile driving activities are expected to exceed interim $SEL_{Cumulative}$ threshold levels for more than two consecutive days, Permittee shall dewater the affected stream reach in lieu of using block nets to exclude fish. During dewatering, Permittee shall incrementally divert flows in the affected reach to facilitate fish capture and relocation. Flows shall be reduced over a minimum 4-hour period in the following increments: 50%, 75%, 90%, and 100%.	ITP Condition # 7.7	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
35	Fish Relocation. Fish relocation activities shall be overseen by the Designated Biologist and shall be conducted by qualified fisheries biologists that are authorized by NMFS and DFG to handle listed salmonids. Captured fish shall be segregated by size to minimize predation, and maintained in cool, well-oxygenated water until released to suitable habitat outside the construction impact area.	ITP Condition # 7.8	Entire Project	Permittee	
36	Fish Passage. Permittee shall ensure that installation of permanent culverts, bridges, grade control structures, instream habitat enhancement features, and other channel modifications do not impede the passage of fish up or down stream. Permittee shall submit detailed designs for work within the stream channel to DFG for review and approval no later than August 1, 2010.	ITP Condition # 7.9	Entire Project	Permittee	
37	Grass Relocation. Permittee shall salvage mature North Coast semaphore grass plants and/or rhizomes from the permanent impact area and relocate them to suitable, protected habitat adjacent to the impact area. Plants and/or rhizomes shall be transplanted by a qualified botanist in the late fall or early winter after soils have been moistened by the first seasonal rains. Permittee shall monitor the transplants, container stock, and adjacent natural plants within the population for a minimum period of 10 years following planting.	ITP Condition # 7.13	Entire Project	Permittee	
38	Surface Hydrology. Permittee shall maintain the existing surface hydrology of the remaining North Coast semaphore grass population within the Project right-of-way to the greatest extent possible by (1) installing two culverts to convey surface flows through the roadway embankment and (2) capturing roadway runoff and preventing it from discharging into adjacent occupied habitat.	ITP Condition # 7.14	Entire Project	Permittee	
39	Grass Population Protection. Permittee shall provide for the long-term protection of the remaining population of North Coast semaphore grass within the Project right-of-way and shall add the location to the current database of Environmentally Sensitive Areas (ESAs) in Caltrans District 1. ESA paddles will be installed within the right-of-way to alert maintenance personnel and protect the population from inadvertent disturbance.	ITP Condition # 7.15	Entire Project	Permittee	
40	Fish Barrier Removal Plan. In consultation with DFG, Permittee shall prepare draft and final designs for a project to remediate existing barriers to fish passage at the South Fork (PM 52.25) and North Fork (PM 52.36) Ryan Creek culverts on U.S. 101. Draft plans for both crossings shall be submitted to DFG for review no later than June 30, 2011. Final plans shall be prepared and submitted to DFG for approval no later than June 30, 2012.	ITP Condition # 8.1	See Condition	Permittee	
42	Fish Barrier Removal Completion. Permittee shall complete construction of the South Fork Ryan Creek culvert remediation project no later than October 31, 2013.	ITP Condition # 8.2	No later than October 31, 2013	Permittee	
43	Fish Barrier Removal Funding. Permittee shall prepare cost estimates for the passage improvement work on the North Fork Ryan Creek culvert based on the final design prepared under Condition 8.1 above and shall apply for funding to complete this work in a timely manner.	ITP Condition # 8.3	No later than June 30, 2012	Permittee	
POST-CONSTRUCTION					
44	Refuse Removal. Upon completion of Project activities, Permittee shall remove from the Project site and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.	ITP Condition # 5.15	Post-construction	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
	Final Mitigation Report. No later than 60 days after completion of the Project, including completion of all mitigation measures, Permittee shall provide DFG with a Final Mitigation Report. The Final Mitigation Report shall be prepared by the Designated Biologist and shall include, at a minimum: (1) a summary of all Monthly/Quarterly Compliance Reports and all ASRs, (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) dates of Project activities; (6) an assessment of the effectiveness of the ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.	ITP Condition # 6.6	Post-construction	Permittee	

ATTACHMENT 2A

DEPARTMENT OF FISH AND GAME

HABITAT MANAGEMENT LAND ACQUISITION PACKAGE CHECKLIST FOR PROJECT APPLICANTS

The following checklist is provided to inform you of what documents are necessary to expedite Department processing of your Habitat Management Land acquisition proposal. Any land acquisition processing requests which are incomplete when received, will be returned. The Region contact will review and approve the document package and forward it to the Habitat Conservation Planning Branch Senior Land Agent with a request to process the land acquisition for formal acceptance.

To: _____
Regional Manager, Region Name

From: _____
Project Applicant

Phone: _____

Tracking #: _____
CDFG assigned permit or agreement #

Project Name: _____

Enclosed is the complete package for the ☐ Conservation Easement OR ☐ Grant Deed

Documents in this package include:

☐ Fully executed, approved as to form Conservation Easement Deed or Grant Deed.

Date executed: _____

☐ Proposed Lands for Acquisition Form (PLFAF)

☐ Phase I Environmental Site Assessment Report Date on report: _____
(An existing report may be used, but it must be less than two years old.)

☐ Preliminary Title Report(s) for subject property is enclosed and has been reviewed for encumbrances and other easements. The title report must be less than six months old when final processing is conducted.

Included are additional documents:

- ☐ document(s) to support title exceptions
- ☐ document(s) to explain title encumbrances
- ☐ a plot or map of easements/encumbrances on the property

☐ Policy of Title Insurance (an existing title policy is not acceptable)

☐ County Assessor Parcel Map(s) for subject property

☐ Site Location Map (Site location with property boundaries outline on a USGS 1:24,000 scale topo)

☐ Final Permit or Agreement (or other appropriate instrument)

Type of agreement: ☐ Bank Agreement ☐ Mitigation Agreement

☐ Permit _____ Other: _____
(write in type of permit)

☐ Final Management Plan (if required prior to finalizing permit or agreement or if this package is for a Grant Deed)

☐ Biological Resources Report

☐ Draft Summary of Transactions ☐ hard copy ☐ electronic copy (both are required)

PROPOSED LANDS FOR ACQUISITION FORM ("PLFAF")

Date: _____

TO: Regional Representative

_____

_____

_____

Facsimile:

FROM:_____

_____

_____

_____

Applicant proposes that the following parcel of land be considered for approval by the Department as suitable for purposes of habitat management lands to replace the adverse environmental impacts of the Project:

Section	Township	Range	Number of Acres
_____	_____	_____	_____

Current Legal Owner(s), include Parcel Number(s):

_____

_____

_____

Location of Parcel:

_____

_____

_____

_____

_____

APPROVED ___ By:_____ DATE:_____

REJECTED ___ _____

Region

Explanation:_____

_____

_____

California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No. R1-2010-0066

For

California Department of Transportation
Highway 101 – Willits Bypass Project
WDID No. 1B10019WNME

Mendocino County

1.0. INTRODUCTION and OBJECTIVE

This Monitoring and Reporting Program (MRP) is issued as a condition of the Clean Water Act Section 401 Water Quality Certification and requires the monitoring and assessment of waters of the State (wetlands, streams, and riparian areas) and the submission of technical reports. The objective of monitoring conducted under this MRP is to provide the California Department of Transportation (Caltrans) and the North Coast Regional Water Quality Control Board (Regional Water Board) with information concerning the conditions and quality of waters of the State and concentration trends within and adjacent to the proposed Highway 101 Willits Bypass Project (project) alignment and the associated off-site mitigation lands. The requirement for technical reports associated with this MRP is related to Caltrans March 1, 2010, application for a Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements.

The technical reports required within this MRP are necessary for the Regional Water Board to appropriately determine whether or not the project will adequately comply with the Basin Plan and all applicable Water Quality Standards and provide the mitigation necessary to compensate impacts to jurisdictional resources. To compensate for the impacts to wetlands Caltrans proposes a watershed approach to achieve an increase in functions and values within the selected mitigation area. This MRP is intended to provide the data necessary to validate that proposal. This MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. It is necessary to establish baseline conditions of surface waters to verify the establishment and enhancement of wetlands, riparian areas, and waters of the U.S. and State within the mitigation lands.

Documenting pre-project baseline conditions of surface waters for the bypass alignment and the mitigation lands are required as part of this MRP. Baseline data will be used to demonstrate that the bypass, both during and after construction, is in compliance with the Basin Plan, California's antidegradation policy in State Water Board Resolution No. 68-16, and the United States Environmental Protection Agency (U.S. EPA) established

sediment and temperature total maximum daily loads (TMDLs) for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Pursuant to Regional Water Board Resolution R1-2004-0087, *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region* (Sediment TMDL Implementation Policy), the Executive Officer is directed to "rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste."

The primary objectives of the MRP include, but are not limited to:

A. Assessing the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
B. Assessing the overall health and evaluating trends in receiving water quality;
C. Assessing the potential biological, chemical, physical impacts, both during and after construction, of the bypass alignment;
D. Determining and revising site specific performance standards and success criteria for the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
E. Evaluating the effectiveness of BMPs, mitigation measures, and avoidance measures;
F. Evaluating activities that results in or may result in violations of MRP and the Water Quality Certification that may warrant additional BMPs or stop work orders;
G. Identifying sources of pollutants;
H. Assessing compliance with water quality objectives and TMDLs;
I. Measuring and assessing the reductions or prevention in pollutant loads; and
J. Verifying and successful repair within the bypass alignment and enhancement of the mitigation lands.

The data collection and evaluation will be broken down into four separate phases for the bypass alignment and mitigation lands (with multiple tasks per phase). Data collection and evaluation may necessitate revisions to the MRP as trends and comparisons are established. This MRP requires the collection and evaluation of data to supplement the Caltrans prepared Final Mitigation and Monitoring Proposal (Final MMP), dated June 2010, for the performance standards and success criteria, short term, and long term mitigation plans. Also see MRP Appendix 1 – Willits Bypass Flow Chart.

The requirements outlined in this MRP are not subject to an expiration date, and remain in full effect and are enforceable. The Executive Officer of the Regional Water Board may add to or modify this MRP, as appropriate.

The four phases and associated tasks of this MRP will be:

Phase I - Baseline Evaluation and Reporting (Bypass Alignment)

Baseline Tasks

a) Collect baseline water quality data for stream reaches along the bypass alignment
b) Collect baseline bioassessment data for bypass alignment
c) Collect baseline wetland data for bypass alignment
d) Prepare and submit reports that evaluate data sets to assess the baseline biological, physical, and chemical properties
e) Incorporate data evaluation, revised success criteria, and revised management plans into MMP

Phase I - Baseline Evaluation and Reporting (Mitigation Lands)

Baseline Tasks

f) Collect baseline water quality data for mitigation lands
g) Collect baseline bioassessment data for mitigation lands
h) Collect baseline wetland data for off-site mitigation lands
i) Prepare and submit reports that evaluate data sets to assess the biological, physical, and chemical properties
j) Incorporate data evaluation, revised success criteria, and revised management plans into MMP

Phase II - Construction Compliance Monitoring and Reporting (Bypass Alignment)

Construction Compliance Tasks

a) Conduct water quality monitoring within the stream reaches along the bypass alignment
b) Submit monthly reports on construction compliance
c) Annual Report summary on construction compliance

Phase II - Construction Compliance Monitoring and Reporting (Mitigation Lands)

Construction Compliance Tasks

d) Conduct water quality monitoring within the mitigation lands
e) Annual qualitative status reports on progress of plantings, and mitigation construction compliance, and mitigation trends and progress

Phase III - Repair Success (Bypass Alignment) – Evaluating and Measuring Success

Repair Monitoring Tasks

a) Conduct water quality monitoring within the stream reaches along the bypass alignment to verify repair success
b) Collect bioassessment data within the stream reaches along the bypass alignment to verify repair success
c) Collect wetland data for bypass to verify repair success
d) Annual reporting on compliance and mitigation progress

e) Final Mitigation Report verifying success.

Phase III - Mitigation Land Enhancement (Mitigation Lands) – Evaluating and Measuring Success

Enhancement Monitoring Tasks

f) Conduct water quality monitoring within the mitigation lands to verify repair and enhancement success
g) Collect bioassessment data for the mitigation lands to verify repair and enhancement success
h) Collect wetland data for the mitigation lands to verify repair and enhancement success
i) Annual reporting on compliance and mitigation progress
j) Final Mitigation Report verifying success.

Phase IV - Long Term Total Maximum Daily Load (TMDL) compliance for the Bypass.

TMDL and Long Term Management Tasks

a) Once success has been achieved for the on-site repair areas, Caltrans shall develop TMDL Compliance Plan and Long Term Management Plan.

Phase IV - Long Term Total Maximum Daily Load (TMDL) compliance for the Mitigation Lands.

TMDL and Long Term Management Tasks

b) Once success has been achieved for the repair areas and the off-site mitigation lands, Caltrans shall develop TMDL Compliance Plan and Long Term Management Plan.

This MRP will detail Phases 1 and 2 to ensure the proper development and implementation of Phase 3 and 4, which are structured within this order similarly to the baseline monitoring program. However, monitoring requirements throughout Phases 3 and 4 will vary, depending on the results of the baseline evaluation and construction compliance monitoring programs. In addition, all phases of this MRP are subject to site specific conditions, climatic variability, and ultimate need for information and therefore may warrant appropriate changes to best reflect the primary objectives stated above.

2.0. SURFACE WATER MONITORING and REPORTING PROGRAM DEVELOPMENT

Prior to implementing a monitoring and sampling program Caltrans shall develop the proper Quality Assurance Project Plan (QAPP) to ensure the data gathered will be reliable for statistical evaluation. The validity of the data collected for the MRP hinges on the proper methods and procedures used.

2.1. Quality Assurance Project Plan

Caltrans shall develop a QAPP for the bypass footprint (including onsite repair areas) and the offsite mitigation lands. The QAPP shall be submitted to the Executive Officer of the Regional Water Board for review, consideration, and concurrence.

2.2. Bioassessment Protocols

Pre-project bioassessments must be conducted prior to initiating any ground-disturbing activities or vegetation removal. Post-project bioassessments shall be performed the following season after completion of the bypass. In addition, for the mitigation lands, post-project bioassessments shall be performed the season after the completion of the mitigation actions at years five and ten of the mitigation monitoring period. The stream bioassessments must be performed in accordance with the State Water Resources Control Board (SWRCB) Surface Water Ambient Monitoring Program (SWAMP) *Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California,* dated February 2007, and associated standard operating procedure memo, dated 21 May 2007, and guidance on quality assurance, dated 17 September 2008. In addition, the *Standard Operating Procedures for Collecting Stream Algae Samples and Associated Physical Habitat and Chemical Data for Ambient Bioassessments in California,* dated June 2009, shall be used for the algae portion of the bioassessment.

The bioassessment must be conducted in accordance with the stream algae samples and the "full" suite of physical habitat characterization measurements, using the "reachwide benthos (Multi-Habitat) procedure". The SWRCB SWAMP standard operating procedures, memos, and guidance documents can be found online at: http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/standard-operating-procedures

3.0. PHASE I - BASELINE MONITORING AND REPORTING

The results of the monitoring requirements outlined below shall be used to develop performance standards and success criteria for the on-site repair areas (bypass alignment) and the off-site mitigation lands. Additionally, the data will be used to demonstrate the enhancement and protection of beneficial uses and long term TMDL implementation for the receiving waters with the Outlet Creek Hydrologic Sub-Area (HSA).

3.1. Baseline Bypass Monitoring

The following water quality constituents will be measured as part of the baseline monitoring within the bypass alignment. This baseline data shall be collected from

August 20th, 2010 to at least May 15th, 2011, if baseline conditions are not changed, baseline monitoring shall continue. Baseline data collection will continue until construction activities have a measureable effect on receiving water monitoring data.

Constituent(s)	Frequency
Stream flow (cubic feet per second)	Continuous[1]
pH	Continuous
Temperature (Air and Water)	Continuous
Total Dissolved Solids	Continuous
Turbidity	Continuous
Specific Conductance	Continuous
Dissolved Oxygen	Continuous
Total Settleable Solids	Event based*
Hardness	Event based*
Total and Dissolved Metals (Cam 17)	Event based*
Oil and Grease	Event based*
Bioassessment – BMI, Phab, & Algae	One Baseline Survey in Summer 2010. (Reaches that are dry in 2010 shall be conducted in Spring 2011)
California Rapid Assessment Method (CRAM) Score	One survey to be determined per CRAM methodology (Spring 2011)
* Additional precipitation event sampling to be conducted in conjunction with the "first flush[2]" event and the seven subsequent storm events > 0.25 inches of precipitation in 24 hours. Precipitation events are separated by 48 hours of dry weather. Precipitation monitoring shall be conducted daily from Phase I through Phase III of this program at a weather station within Little Lake Valley and a method approved by Regional Water Board staff.	

In addition, precipitation event-based monitoring will include visual observations of the appearance of the stream, including color, presence of floating or suspended matter or debris; appearance of the receiving water at the station location (e.g., occurrence of erosion and scouring, solids deposition, unusual aquatic growth, algae); and observations about the receiving water, such as the presence of aquatic life.

Wetland baseline assessments throughout the bypass alignment shall include:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition] - Hydrology frequency at two week intervals from **November 1st - May 30th, 2010**
- Absolute percent coverage of wetland plants
- Absolute percent cover of native plant species

1 Continuous monitoring shall occur at all sampling sites at 15 minute intervals.

2 First flush is the initial surface runoff from a rainstorm after the dry season that causes a measurable increase of flow in surface waters.

- Species richness
- Absolute percent coverage of invasive species
- CRAM score.

3.2. Baseline Bypass Monitoring Locations

The number of monitoring locations will vary according to the status of bypass construction. Baseline water quality data will be collected at the following 10 locations along the bypass alignment, as shown in Figure 1:

- Upper Haehl Creek downstream of the Haehl Creek interchange construction footprint (WQ-3);
- Middle Haehl Creek downstream of the Haehl Creek bridge construction footprint (WQ-5);
- Lower Haehl Creek downstream of the viaduct construction footprint, but upstream of the Baechtel Creek confluence (WQ-9);
- Baechtel Creek upstream of the Baechtel Creek retaining wall construction footprint (WQ-6), upstream of the Haehl Creek confluence (WQ-7), and upstream of the viaduct construction footprint (WQ-10);
- Broaddus Creek upstream of the viaduct construction footprint (WQ-12);
- Outlet Creek downstream of the viaduct construction footprint (WQ-11);
- Mill Creek downstream of the viaduct construction footprint (WQ-14); and
- Upp Creek downstream of the Quail Meadows interchange construction footprint (WQ-17).

Bioassessment monitoring will occur at the following 13 locations along the bypass alignment, as shown in Figure 2:

- Upper Haehl Creek upstream of the Haehl Creek interchange (BA-1), within the Haehl Creek interchange creek repair (BA-2), and downstream of the Haehl Creek interchange (BA-3);
- Baechtel Creek below its confluence with Haehl Creek (BA-4), along the Category I riparian enhancement area parcels (BA-5), and below the riparian enhancement area (BA-6);
- Outlet Creek downstream of the Baechtel-Broaddus Creek confluence but upstream of the Category I riparian enhancement area (BA-7);
- Mill Creek upstream of the bypass footprint (BA-8), below the bypass footprint (BA-9), and downstream of the Category I riparian enhancement parcel (BA-10); and
- Upp Creek upstream of the Quail Meadows interchange (BA-11), within the Quail Meadows interchange creek repair (BA-12), and downstream of the Quail Meadows interchange (BA-13).

Wetland baseline assessments throughout the bypass alignment shall be conducted in accordance with the following:

- Plants surveys conducted in spring 2011 for 10-20% of total wetland acreage
- A minimum of 10-20% of the wetland surface area will be surveyed. Following this data collection, a percent cover-area curve will be developed to determine if 10-20% is an adequate sample size to accurately monitor vegetation. If not, additional quadrats will be sampled until the curve reaches the appropriate number of samples needed to minimize error and maximize accuracy (by capturing the inherent variability in the vegetation across the wetland). Once the cover-area curve has stabilized, an additional 3 quadrats will be sampled to confirm that the curve's plateau does not shift.

Following baseline data collection, a statistical analysis will be conducted to determine if the number of quadrats sampled was appropriate to accurately assess the vegetation. The data will be combined and averaged by habitat type and the analysis will include the following parameters:

- Power analysis at 80%;
- Test of significance at 10% (i.e., the probability of mistakenly rejecting accurate data is no more than the stated probability);
- Minimum detectable change at 20%; and
- Standard error by habitat type.

The result of this analysis will determine the number of quadrats to be sampled in subsequent years (this number could be greater than or less than 10-20% of the wetland surface area). While the complete statistical analysis described above will not be required in subsequent years, the standard error will be reported for each monitoring year.

3.3. Baseline Mitigation Monitoring

The following water quality constituents will be measured as part of baseline monitoring in the mitigation lands. This baseline data shall be collected from **August 20th, 2010 to at least October 15th, 2011**, if baseline conditions are not changed by construction activities or mitigation actions then baseline monitoring shall continue until conditions are altered. Baseline data collection will continue until implemented mitigation activities have a measureable effect on receiving water monitoring data.

Constituent(s)	Frequency
Stream flow	Continuous
pH	Continuous
Temperature (air and water)	Continuous
Total Dissolved Solids	Continuous

Constituent(s)	Frequency
Turbidity	Continuous
Specific Conductance	Continuous
Dissolved Oxygen	Continuous
Total Settleable Solids	Monthly*
Total and Dissolved Metals (Cam 17)	Monthly*
Total Nitrogen	Monthly*
Ammonia	Monthly*
Nitrate and Nitrite	Monthly*
Total Kjeldahl Nitrogen	Monthly*
Biochemical Oxygen Demand	Monthly*
Total and Dissolved Phosphorus	Monthly*
Hardness	Monthly*
Fecal Coliform	Monthly*
Enterococcus	Monthly*
Total Organic Carbon	Monthly*
Bioassessment – BMI, Phab, & Algae	Two Baseline Surveys Summer 2010 and Spring 2011 (April/May).
CRAM Score	One survey to be determined per CRAM methodology (Spring 2011)
* Additional precipitation event sampling to be conducted in conjunction with the "first flush" event and the seven subsequent storm events > 0.25 inches of precipitation in 24 hours. Precipitation events are separated by 48 hours of dry weather. Precipitation monitoring shall be conducted from Phase I through Phase III of this program at a weather station within Little Lake Valley and a method approved by Regional Water Board staff.	

In addition, monthly and precipitation event-based monitoring will include visual observations of the appearance of the stream including color, presence of floating or suspended matter or debris; appearance of the receiving water at the station location (e.g., occurrence of erosion and scouring, solids deposition, unusual aquatic growth, algae); and observations about the receiving water, such as the presence of aquatic life.

Wetland baseline assessments throughout the mitigation lands shall include:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition] - Hydrology frequency **every two weeks from November 1st - May 30th, 2010**
- Nutrient removal/transformation
- Sediment/toxicant retention
- Absolute percent coverage of wetland plants
- Relative percent cover of native plant species
- Species richness

- Absolute percent coverage of invasive species
- CRAM score

3.4. Baseline Mitigation Land Monitoring Locations

The number of monitoring locations may vary according to the status of bypass construction. Baseline water quality data will be collected at the following 11 locations at the offsite mitigation parcels (Figure 1):

- Old Outlet Creek downstream of parcel 108-030-04 (WQ-20), west of parcel 108-010-06 along the Category I riparian creation area (WQ-21), and west of parcel 108-010-06 downstream of the Category II riparian creation site on lower Wild Oat Canyon Creek (WQ-22);
- Outlet Creek downstream of parcels 108-030-05 (WQ-18) and 108-020-04\ (WQ-19);
- Davis Creek upstream of parcel 108-070-08 (WQ-23), downstream of parcel 108-060-01 (WQ-24), and downstream of parcel 108-010-05 (WQ-25);
- Berry Creek upstream of Category I riparian creation on parcel 108-070-09 (WQ-26), and downstream of parcel 108-060-02 (WQ-28); and
- Outlet Creek (WQ-27) downstream of the confluence with Davis Creek and Caltrans existing Highway 101 Outlet Creek Bridge post mile (PM) 50.66.

Bioassessment monitoring will occur at the following 10 locations at the offsite mitigation lands (Figure 2):

- Outlet Creek downstream of parcels 108-030-05 (BA-14) and 108-020-04 (BA-15);
- Old Outlet Creek downstream of parcel 108-030-04 (BA-16), west of parcel 108-010-06 along the Category I riparian creation area (BA-17), and west of parcel 108-010-06 downstream of the Category II riparian creation site on lower Wild Oat Canyon Creek (BA-18);
- Davis Creek upstream of parcel 108-070-08 (BA-19), downstream of parcel 108-060-01 (BA-20), and downstream of parcel 108-010-05 (BA-21); and
- Berry Creek upstream of Category I riparian creation on parcel 108-070-09 (BA-22), and downstream of parcel 108-060-02 (BA-24).

Wetland baseline assessments throughout the mitigation lands shall be conducted in accordance with the following:

- Plants surveys conducted in spring 2011 for 10-20% of total wetland acreage
- A minimum of 10-20% of the wetland surface area will be surveyed. Following this data collection, a percent cover-area curve will be developed to determine if 10-20% is an adequate sample size to accurately monitor vegetation. If not, additional quadrats will be sampled until the curve reaches the appropriate

number of samples needed to minimize error and maximize accuracy (by capturing the inherent variability in the vegetation across the wetland). Once the cover-area curve has stabilized, an additional 3 quadrats will be sampled to confirm that the curve's plateau does not shift.

Following baseline data collection, a statistical analysis will be conducted to determine if the number of quadrats sampled was appropriate to accurately assess the vegetation. The data will be combined and averaged by habitat type and the analysis will include the following parameters:

- Power analysis at 80%;
- Test of significance at 10% (i.e., the probability of mistakenly rejecting accurate data is no more than the stated probability);
- Minimum detectable change at 20%; and
- Standard error by habitat type.

The result of this analysis will determine the number of quadrats to be sampled in subsequent years (this number could be greater than or less than 10-20% of the wetland surface area). While the complete statistical analysis described above will not be required in subsequent years, the standard error will be reported for each monitoring year.

3.4.1. Baseline Evaluation Reports and Revised MMP

Caltrans shall submit reports documenting the results of the baseline water quality surveys required by this MRP: A report for the bypass alignment and a report for the mitigation lands. The report for the bypass alignment shall evaluate the data gathered and revise the performance standards and success criteria for proposed repair and restoration actions. In addition, the bypass alignment report shall present how the revised performance standards and success criteria will be used to implement the sediment and temperature TMDLs. The report for the off-site mitigation lands shall evaluate the data gathered and revise the performance standards and success criteria for the enhancement of the off-site mitigation lands. Additionally, the mitigation land report shall present how the revised performance standards and success criteria will be used to implement the sediment and temperature TMDLs.

The CRAM scores shall be entered into the CRAM database. In addition, the data collected shall be SWAMP compatible and submitted electronically to the Regional Water Board. The baseline evaluation reports will be used to amend the final MMP. The reports shall include, at a minimum, the following information:

- Data collection procedures protocols
- QA/QC for sample collection, handling and analysis
- Data in narrative summaries and data analysis
- Summaries and conclusions
- Data tables

- Data concentration graphs
- Site maps
- Site photographs
- Laboratory analytical reports
- Field logs and data sheets
- Filed instrument calibration logs

The reports shall correlate site observations, historical data, and local site specific baseline data to establish the local baseline conditions along the bypass alignment and mitigation lands to establish the proper functioning conditions (PFC). The PFC or ideal natural conditions shall be defined in the future reports subsequent to the completion of the baseline assessments. The data gathered from the baseline assessment shall be used to assess the characteristics of the PFC and shall be correlated to the performance standards and success criteria for wetlands, streams, and riparian/buffer areas for the off-site mitigation lands. The baseline reports are due to the Regional Water Board by **January 31, 2012**.

3.4.2. Revised Performance Standards / Success Criteria

The performance standards listed below shall be cumulatively assessed within each category to determine the success of the mitigation and repair actions. In other words successful mitigation shall take into consideration an overall weight of evidence. Those performance standards and success criteria shall be incorporated in the MMP, which shall be submitted to the Regional Water Board by **April 30, 2012**.

3.4.3. Riparian (Buffer) Establishment/Creation, Repair, and Enhancement Success Criteria

Based on the baseline data gathered Caltrans shall include the following performance standards and success criteria:

- Plant survival
- Plant vigor
- Percent vegetation cover (canopy)
- Maximum site potential shade
- Baseline percent canopy cover
- Percent effective shade (shade on water)
- Baseline and target temperature objectives
- Physical Habitat Criteria per SWAMP protocols
- Benthic Index of Biotic Integrity (B-IBI) for Wadeable Streams in Northern Coastal California.

3.4.4. Wetland Establishment/Creation, Repair and Enhancement Success Criteria

Based on the baseline data gathered, Caltrans shall include the following performance standards and success criteria:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition]
- Nutrient removal/transformation
- Sediment/toxicant retention
- Absolute percent coverage of wetland plants
- Absolute percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- CRAM score.

3.4.5. Other Waters (streams) Enhancement Success Criteria

Based on the baseline data gathered, Caltrans shall include shall include the following performance standards and success criteria:

- Geomorphic conditions (e.g., cross sectional water depth, wetted channel width, bankfull width, full channel width, cross sectional channel width, substrate characteristics, canopy cover, gradient, sinuosity, large woody debris, fish habitat characteristics and rating)
- Physical Habitat Criteria per SWAMP protocols
- IBI for BMI assessment including but not limited to (taxa richness, taxa composition, percent tolerant/intolerant organisms, functional feeding group analysis, and abundance)
- B-IBI for Wadeable Streams in Northern Coastal California
- CRAM Score.

3.4.6. Work Plan / Short Term Management Plan

Subsequent to evaluating the baseline data collected and revising the performance standards, Caltrans shall revise the work plan / short term mitigation plan for the bypass alignment and mitigation lands to include:

- Mitigation Specific Design Plans (e.g., riparian/buffer planting plans, erosion site restoration plans, exclusionary fence locations)
- Repair Action Specific Design Plans (e.g., riparian/buffer planting plans)
- Design and Construction Specifications
- Implementation Schedule

The revised work plan / short term management plan shall be incorporated in the MMP and submitted to the Regional Water Board by **April 30, 2012**.

3.4.7. Grazing Management Plan

Subsequent to evaluating the data collected from Phase I of the MRP, Caltrans shall revise the grazing management plan (parcel or zone specific) to include monitoring for the performance standards listed above that apply to streams, riparian areas, and wetlands. The goal is to monitor and manage the PFC of the wetlands, riparian areas, and streams.

The grazing management plan shall include the following goals and objectives:

- The components (functioning conditions of the ecosystem and cattle)
- What is to be accomplished (enhancement of the baseline conditions)
- The amount of change (success criteria increase from baseline)
- The locations (parcel or zone specific)
- A timeframe (schedule for success and reevaluation of management practices)

It is recommended that the grazing management plan include the following best management practices (BMPs):

- Parcel or zone specific grazing prescription;
- Parcel or quadrant specific grazing schedule that is developed with the enhancement and protection of natural resources (e.g., wetlands, streams and riparian areas) as the primary focus of the management plan;
- A setback plan (e.g. exclusionary fencing) to prevent cattle from entering streams or degrading the functions of the riparian areas;
- A schedule and plan that provides for plant development prior to, or plant recovery following, the grazing period each year; and
- An inspection schedule to assess the conditions of wetland and riparian areas at a frequency adequate to enable, if necessary, prompt corrective management action to protect the health of the riparian area. The schedule should be at least monthly during grazing within the short term mitigation implementation period.

The revised grazing management plan shall be incorporated in the MMP and submitted to the Regional Water Board by **April 30, 2012**.

4.0. PHASE II - CONSTRUCTION COMPLIANCE MONITORING and REPORTING

In order to demonstrate whether the bypass is in compliance with the applicable water quality objectives, Caltrans shall conduct monitoring in accordance with this MRP and the Water Quality Certification. This MRP requires monitoring at static locations throughout the bypass alignment during the construction phase.

4.1. Water Quality Monitoring for the Bypass Footprint.

Constituent(s)	Frequency
Stream flow	Continuous
pH	Continuous
Temperature (Air and Water)	Continuous
Total Dissolved Solids	Continuous
Turbidity	Continuous
Specific Conductance	Continuous
Dissolved Oxygen	Continuous
Total Settleable Solids	Event based*
Total and Dissolved Metals (Cam 17)	Event based*
Hardness	Event based*
Oil and Grease	Event based*
Methlylene Blue Activated Substances	Event based*
* Additional precipitation event sampling to be conducted in conjunction with the "first flush" event and the seven subsequent storm events > 0.25 inches of precipitation in 24 hours. Precipitation events are separated by 48 hours of dry weather. Precipitation monitoring shall be conducted from Phase I through Phase III of this program at a weather station within Little Lake Valley and a method approved by Regional Water Board staff.	

In addition, precipitation event-based monitoring will include visual observations of the appearance of the stream including color, presence of floating or suspended matter or debris; appearance of the receiving water at the station location (e.g., occurrence of erosion and scouring, solids deposition, unusual aquatic growth, algae); and observations about the receiving water, such as the presence of aquatic life.

Water quality data will be collected at the following 17 locations along the bypass alignment for construction compliance monitoring (Figure 1):

- Upper Haehl Creek upstream of the interchange construction footprint (WQ-1), within the construction foot print (WQ-2) and downstream of the Haehl Creek interchange (WQ-3);
- Middle Haehl Creek bridge construction upstream of the project footprint (WQ-4) and downstream of the project footprint (WQ-5);
- Baechtel Creek upstream of the Baechtel Creek retaining wall construction footprint (WQ-6), upstream of the Haehl Creek confluence (WQ-7), Lower Haehl Creek upstream of the bypass footprint (WQ-8);
- Lower Haehl Creek downstream of the viaduct construction footprint, but upstream of the Baechtel Creek confluence (WQ-9); and upstream of the viaduct construction footprint (WQ-10);

- Outlet Creek downstream of the viaduct construction footprint (WQ-11) and Broaddus Creek upstream of the viaduct construction footprint (WQ-12);
- Mill Creek upstream of the viaduct construction footprint.(WQ-13) downstream of the viaduct construction footprint (WQ-14); and
- Upp Creek upstream (WQ-15) and within (WQ-16) the Quail Meadows interchange construction footprint and downstream of the interchange construction footprint (WQ-17).

4.2. Water Quality Objectives

The relevant water quality requirements, parameters, and objectives applicable to the project are summarized below. However, the list below is not all inclusive of all relevant water quality requirements; water quality objectives, and the authority and jurisdiction of the Regional Water Board are not limited to the list below.

Constituent	**Concentrations**
pH[3]	>6.5 or <8.5
Temperature[4]	<0.5 degrees F
Dissolved Oxygen[5]	>7.0 mg/L or (>9.0 mg/L)
Total Dissolved Solids	<230[6] or <125[7]
Turbidity	<20% above background
Specific Conductance[8]	<400[5] or <200[6]
Hardness	Used to correlate metals concentrations
Total and Dissolved Metals	Various aquatic criteria within the Basin Plan and California Toxics Rule[9] for Inland Surface Waters
Total Suspended Solids	Waters shall not contain substances in concentrations that causes nuisance or adversely affect beneficial uses.
Oil and Grease	

3 Changes in normal ambient pH levels shall not change 0.5 units within the range specified in fresh waters with designated COLD or WARM beneficial uses.

4 The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5°F above natural receiving water temperature. mg/L – milligrams per liter

5 Waters designated SPWN during critical spawning and egg incubation periods is >9.0 mg/l

6 90% or more of the yearly values must be less than or equal this limit.

7 50% or more of the monthly means must be less than this limit.

8 micromhos @ 77°F

9 California Toxics Rule (CTR) objectives are not used as effluent limitations or Basin Plan Water Quality Objectives. CTR values will be utilized to assess the effectiveness of BMPs associated with the project construction as well as post-construction treatment BMPs.

4.3. Reporting

Monthly Monitoring Reports: shall be submitted to the Executive Officer of the Regional Water Board. The monthly monitoring reports shall include, at a minimum;

1) A summary of discharges;

2) A summary of corrective actions taken (if necessary);

3) Photographs;

4) All field sampling measurements and/or results;

5) Project status (i.e. upcoming construction schedule and disturbed soil area updates);

6) Monitoring reports and field logs;

7) Water quality monitor reports and field logs;

8) All field monitoring equipment calibration logs;.

9) Caltrans shall develop, and Regional Water Board shall approve, a data management and reporting system to efficiently and effectively report sampling and monitoring data. Monthly monitoring reports are due to the Regional Water Board **by the 15th of each month** once work on the project has been initiated.

Rainy Day Reports: Caltrans shall take photos of all areas disturbed by project activities, including all excess materials disposal areas, after rainfall events that generate visible runoff from these areas in order to demonstrate that erosion control and revegetation measures are present and have been installed appropriately and successfully. A brief report containing these photos shall be submitted **within 30 days of the rainfall event that generated runoff from the disturbed areas**.

Annual Monitoring Reports: Caltrans shall provide the Regional Water Board with an Annual Monitoring Report no later than **January 31** of every year beginning with issuance of this Order and continuing until the Regional Water Board accepts the Final Mitigation Report. The annual reports (i.e. report for the bypass alignment and a report for the mitigation lands) shall include, at a minimum:

1) A summary of all monitoring reports identified in this Order;

2) A general description of the status of the project site and project activities, including actual or projected completion dates, if known;

3) A summary of the annual mitigation monitoring reports and the current implementation status of each mitigation measure;

4) An assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and mitigating project impacts (e.g., adaptive management summary for mitigation and environmental sensitive area fencing for bypass construction);

5) Results and an evaluation of the data collected from this MRP;

6) Monthly Monitoring and Rainy Day Reports; and

7) A compliance table (spreadsheet) that presents each condition of the Water Quality Certification and the MRP, time frame (yearly calendar), project milestones and achievements, all reported discharges, and all violations of this MRP and each condition of the Water Quality Certification.

5.0. PHASE III – EVALUATING SUCCESS FOR THE MITIGATION LAND ESTABLISHMENT/CREATION AND ENHACEMENT (MITIGATION LANDS) AND ON-SITE REPAIR (BYPASS)

As stated in Section 1.0., the purpose of the baseline monitoring is to establish the conditions of surface waters to verify the establishment, enhancement and repair of wetlands, riparian areas (buffers), and streams within the mitigation lands and bypass footprint, respectively. Prior to Phase III the proper functioning conditions of the establishment, enhancement, and repair sites has been determined, and the data gathered during the baseline has been correlated with the performance standards and ultimate success criteria. The following post construction monitoring will be implemented to track performance and determine success.

5.1. Post-Construction Bypass Water Quality

The following water quality monitoring program will be conducted for **one calendar year at years one, five, and ten** as part of compliance monitoring in the bypass alignment subsequent to the completion bypass. Monitoring may be extended or reduced depending on the results.

Constituent(s)	Frequency
Stream flow	Continuous
pH	Continuous
Temperature (Air and Water)	Continuous
Total Dissolved Solids	Continuous
Turbidity	Continuous

Constituent(s)	Frequency
Specific Conductance	Continuous
Dissolved Oxygen	Continuous
Total Settleable Solids	Event based*
Total and Dissolved Metals (Cam 17)	Event based*
Hardness	Event based*
Oil and Grease	Event based*
Methlylene Blue Activated Substances	Event based*
Bioassessment – BMI, Phab, & Algae	Summer and Spring Surveys twice per year (July/August and April/May) at years one, five and ten
CRAM Score	To be determined per CRAM methodology (Spring) at years one, five and ten
* Additional precipitation event sampling to be conducted in conjunction with the "first flush" event and the seven subsequent storm events > 0.25 inches of precipitation in 24 hours and which generate visible runoff. Precipitation events are separated by 48 hours of dry weather. Precipitation monitoring shall be conducted from Phase I through Phase III of this program at a weather station within Little Lake Valley and a method approved by Regional Water Board staff.	

Wetland Assessment for On-site Repair shall include:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition] - Hydrology frequency conducted at two week intervals from November 1st - May 30th
- Absolute percent coverage of wetland plants
- Relative percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- CRAM score.

5.2. Bypass Monitoring Locations

Water quality data will be collected at the following 17 locations along the bypass alignment (Figure 1):

- Upper Haehl Creek upstream of the interchange construction footprint (WQ-1), within the construction foot print (WQ-2) and downstream of the Haehl Creek interchange (WQ-3);
- Middle Haehl Creek bridge construction upstream of the project footprint (WQ-4) and downstream of the project footprint (WQ-5);

- Baechtel Creek upstream of the Baechtel Creek retaining wall construction footprint (WQ-6), upstream of the Haehl Creek confluence (WQ-7), Lower Haehl Creek upstream of the bypass footprint (WQ-8);
- Lower Haehl Creek downstream of the viaduct construction footprint, but upstream of the Baechtel Creek confluence (WQ-9); and upstream of the viaduct construction footprint (WQ-10);
- Outlet Creek downstream of the viaduct construction footprint (WQ-11) and Broaddus Creek upstream of the viaduct construction footprint (WQ-12);
- Mill Creek upstream of the viaduct construction footprint.(WQ-13) downstream of the viaduct construction footprint (WQ-14); and
- Upp Creek upstream (WQ-15) and within (WQ-16) the Quail Meadows interchange construction footprint and downstream of the interchange construction footprint (WQ-17).

Bioassessment monitoring will occur at the following 13 locations along the bypass alignment twice per year at years one, five and ten subsequent to the completion of the bypass (Figure 2):

- Upper Haehl Creek upstream of the Haehl Creek interchange (BA-1), within the Haehl Creek interchange creek repair (BA-2), and downstream of the Haehl Creek interchange (BA-3);
- Baechtel Creek below its confluence with Haehl Creek (BA-4), along the Category I riparian enhancement area parcels (BA-5), and below the riparian enhancement area (BA-6);
- Outlet Creek downstream of the Baechtel-Broaddus Creek confluence but upstream of the Category I riparian enhancement area (BA-7);
- Mill Creek upstream of the bypass footprint (BA-8), below the bypass footprint (BA-9), and downstream of the Category I riparian enhancement parcel (BA-10); and
- Upp Creek upstream of the Quail Meadows interchange (BA-11), within the Quail Meadows interchange creek repair (BA-12), and downstream of the Quail Meadows interchange (BA-13).

Wetland assessments for the baypass alignment shall be conducted in accordance with the following:

- Plants surveys conducted in spring for the location and area determined by the baseline surveys and associated statistical power analysis.

5.3. Mitigation Monitoring

The following water quality monitoring program will be conducted for **one calendar year at years one, five and ten** as part of establishment and enhancement monitoring in the mitigation lands subsequent to the completion of the mitigation actions. The mitigation

actions are defined as construction events (e.g., wetland creation, riparian creation, bank erosion stabilization), not management activities (e.g., grazing management).

Constituent(s)	Frequency
Stream flow	Continuous
pH	Continuous
Temperature (air and water)	Continuous
Total Dissolved Solids	Continuous
Turbidity	Continuous
Specific Conductance	Continuous
Dissolved Oxygen	Continuous
Total Settleable Solids	Monthly*
Total and Dissolved Metals (Cam 17)	Monthly*
Total Nitrogen	Monthly*
Ammonia	Monthly*
Nitrate and Nitrite	Monthly*
Total Kjeldahl Nitrogen	Monthly*
Biochemical Oxygen Demand	Monthly*
Total and Dissolved Phosphorus	Monthly*
Hardness	Monthly*
Fecal Coliform	Monthly*
Enterococcus	Monthly*
Total Organic Carbon	Monthly*
Bioassessment – BMI, Phab, & Algae	Twice per year (July/August and April/May) at years one, five and ten
CRAM Score	To be determined per CRAM methodology (Spring) at years one, five and ten
* Additional precipitation event sampling to be conducted in conjunction with the "first flush" event and the seven subsequent storm events > 0.25 inches of precipitation in 24 hours and which generate visible runoff. Precipitation events are separated by 48 hours of dry weather. Precipitation monitoring shall be conducted from Phase I through Phase III of this program at a weather station within Little Lake Valley and a method approved by Regional Water Board staff.	

In addition, monthly and precipitation event-based monitoring will include visual observations of the appearance of the stream, including color, presence of floating or suspended matter or debris; appearance of the receiving water at the station location (e.g., occurrence of erosion and scouring, solids deposition, unusual aquatic growth, algae); and observations about the receiving water, such as the presence of aquatic life.

Wetland Assessment for Mitigation Monitoring:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition] - Hydrology frequency conducted at two week intervals from November 1st - May 30th
- Plants surveys conducted in spring
- Nutrient removal/transformation
- Sediment/toxicant retention
- Absolute percent coverage of wetland plants
- Relative percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- CRAM score

5.4. Mitigation Land Monitoring Locations

The number of monitoring locations may vary according to the status of bypass construction. Water quality data will be collected at the following 11 locations throughout the offsite mitigation parcels (Figure 1):

- Old Outlet Creek downstream of parcel 108-030-04 (WQ-20), west of parcel 108-010-06 along the Category I riparian creation area (WQ-21), and west of parcel 108-010-06 downstream of the Category II riparian creation site on lower Wild Oat Canyon Creek (WQ-22);
- Outlet Creek downstream of parcels 108-030-05 (WQ-18) and 108-020-04\ (WQ-19);
- Davis Creek upstream of parcel 108-070-08 (WQ-23), downstream of parcel 108-060-01 (WQ-24), and downstream of parcel 108-010-05 (WQ-25);
- Berry Creek upstream of Category I riparian creation on parcel 108-070-09 (WQ-26), and downstream of parcel 108-060-02 (WQ-28); and
- Outlet Creek (WQ-27) downstream of the confluence with Davis Creek and Caltrans existing Highway 101 Outlet Creek Bridge.

Bioassessment monitoring will occur at the following 10 locations at the offsite mitigation lands subsequent to the completion of the mitigation actions (Figure 2):

- Outlet Creek downstream of parcels 108-030-05 (BA-14) and 108-020-04 (BA-15);
- Old Outlet Creek downstream of parcel 108-030-04 (BA-16), west of parcel 108-010-06 along the Category I riparian creation area (BA-17), and west of parcel 108-010-06 downstream of the Category II riparian creation site on lower Wild Oat Canyon Creek (BA-18);

- Davis Creek upstream of parcel 108-070-08 (BA-19), downstream of parcel 108-060-01 (BA-20), and downstream of parcel 108-010-05 (BA-21); and
- Berry Creek upstream of Category I riparian creation on parcel 108-070-09 (BA-22) and downstream of parcel 108-060-02 (BA-24).

Wetland assessments throughout the mitigation lands shall be conducted in accordance with the following:

- Plants surveys conducted in spring for the location and area determined by the baseline surveys and associated statistical power analysis.

5.5. Reporting

Annual Monitoring Reports: Caltrans shall provide the Regional Water Board with an Annual Monitoring Report no later than **January 31** of every year beginning with issuance of this MRP and continuing until the Regional Water Board accepts the verified success of the mitigation and signs of on the Final Mitigation Report. Each annual report shall include, at a minimum:

1) A summary of all monitoring reports identified in this Order;

2) A general description of the status of the project site and project activities, including actual or projected completion dates, if known;

3) A summary of the annual mitigation monitoring reports and the current implementation status of each mitigation measure;

4) An assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing, and mitigating project impacts;

5) Results and an evaluation of the data collected from this MRP;

6) Monthly Monitoring and Rainy Day Reports; and

7) A compliance table (spreadsheet) that presents each condition of the Water Quality Certification and the MRP, time frame (yearly calendar), project milestones and achievements, all reported discharges, and all violations of this MRP and each condition of the Water Quality Certification.

Slope Stability Reports: Caltrans shall provide yearly slope evaluation and erosion control monitoring reports for up to 10 years subsequent to the completion of the bypass project. Caltrans shall provide at least 80 percent coverage of established erosion control of all exposed areas along the bypass. To ensure the reduction of sediment transport into the Outlet Creek HSA, Caltrans shall conduct inspections prior to and

subsequent to each rainy season up to 10 years after completion of the bypass. Reports shall include, at a minimum:

1) Name and title of personnel conducting monitoring and/or maintenance;

2) Observation dates;

3) Site photographs;

4) Maps including percent coverage of established erosion control and revegetion efforts; and

5) An erosion evaluation.

If the new bypass project has slope failures, excessive erosion, or causes other water quality degradation corrective actions will be required to mitigate the impacts. Established erosion control is vegetation growth, not applied erosion control product.

Final Mitigation Report: No later than 120 days after achieving success criteria for the on-site repair and the off-site mitigation lands, Caltrans shall provide the Regional Water Board with a Final Mitigation Report. The Final Mitigation Report shall include, at a minimum:

1) A summary of all monthly monitoring reports and annual status reports;

2) Copies of all mitigation monitoring reports documenting when success criteria for each of the mitigation measures were achieved;

3) All available information about mitigation measures, data collection for the MRP, and projects taken to implement the sediment and temperature TMDLs;

4) Each yearly compliance calendar;

5) An assessment of the effectiveness of the required measures in avoiding, minimizing, and mitigating project impacts;

6) Any recommendations on how mitigation measures might be changed to more effectively minimize impacts to water quality and mitigate the impacts of future projects;

7) A final long term management plan;

8) Revised PAR and endowment calculation approved by the long term manager; and

9) Any other pertinent information.

The long term management plan shall include the following actions:

a) Water Quality Monitoring plans to verify habitat enhancement, compliance with the basin plan, and TMDL;
b) Inspections of the erosion sites shall be conducted annually to assess the stability and condition of the repair actions and for all the sites identified in Appendix J of the Final MMP;
c) All adaptive management plans and actions (e.g. stream channel or bank stabilization, vegetation management, and erosion control) for waters of the State (i.e., streams, riparian areas, and wetlands) shall be submitted to the Executive Officer of the Regional Water Board for prior review and concurrence.

6.0. PHASE IV – TMDL COMPLIANCE BYPASS AND MITIGATION LANDS

Once success has been achieved for the on-site repair areas and the off-site mitigation lands, Caltrans shall develop individual TMDL Compliance Plans for the bypass and mitigation lands. The TMDL compliance plan for the bypass shall be incorporated into the Annual Storm Water Work Plans and Reports, while the TMDL compliance plan shall be incorporated into the Mitigation Lands Long Term Management Plan and enrolled under the appropriate regulatory permit as determined by the Executive Officer of the Regional Water Board.

All previously gathered data shall be evaluated to determine the minimum amount of monitoring necessary to regularly evaluate whether the bypass alignment and mitigation lands are continuing to remain in compliance with the Basin Plan and applicable TMDLs or if there are contributing factors to degradation and impairments of water quality and beneficial uses.

Ordered by _____

Catherine Kuhlman
Executive Officer

August 6, 2010

California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
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Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

August 6, 2010

In the Matter of

Water Quality Certification

for the

California Department of Transportation
Highway 101 – Willits Bypass Project:
WDID No. 1B10019WNME

APPLICANT:	California Department of Transportation
RECEIVING WATER:	Wetlands and Haehl Creek, Baechtel Creek, Broaddus Creek, Mill Creek, Outlet Creek, Upp Creek, and Ryan Creek
HYDROLOGIC AREA:	Eel River Hydrologic Unit (HU) No.111.00 Outlet Creek Hydrologic Sub-Area (HSA) No. 111.61
COUNTY:	Mendocino
FILE NAME:	CDOT - Hwy 101, Willits Bypass Project

BY THE EXECUTIVE OFFICER:

1. On March 1, 2010, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application and $40,000.00 fee from the California Department of Transportation (Caltrans), requesting federal Clean Water Act (CWA), section 401, Water Quality Certification for activities related to the proposed first phase of the Highway 101, Willits Bypass project (project). The proposed project will cause disturbances to waters of the United States (U.S.) and waters of the State, including wetlands and intermittent, ephemeral and perennial tributaries to Outlet Creek, which is located within the Eel River Hydrologic Unit No.111.00, the Outlet Creek Hydrologic Sub-Area (HSA) No. 111.61, and the Little Lake Valley Ground Water Basin. The Regional Water Board is proposing to

regulate this project pursuant to Section 401 of the CWA (33 USC 1341) and/or Porter-Cologne Water Quality Control Act authority.

2. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on April 29, 2010, and posted information describing the project on the Regional Water Board's website. Regional Water Board staff received letters from 75 individuals or groups in response to the subject notice of Water Quality Certification and Waste Discharge Requirements. Of those 75, 27 were in favor of the proposed project, while 48 raised various objections. Because many of the same comments were described in different letters, Regional Water Board staff grouped comments together where appropriate, and provided one response. The Regional Water Board has issued a response to comments concurrently with this Order, and is included as Attachment 1.

3. The proposed project is located on Highway 101, in Mendocino County, and will begin approximately 0.8 mile south of the Haehl Overhead and end approximately 1.9 miles south of the Reynolds Highway. The overall length of the bypass is approximately 5.9 miles from post mile realignment (PMR) 43.1 and ending near PMR 49.0. The purpose of the project is to upgrade the level of service to the traveling public along Highway 101 by reducing travel times and reducing the traffic congestion along Highway 101 and within the City of Willits. Beginning at the southern end of the project, the new alignment of Highway 101 would swing to the northeast and then travel back to the northwest, adjacent to the Willits Wastewater Treatment Plant (WWTP). Because of funding constraints, the decision was made to construct the bypass in two phases such that a functional interim two-lane facility would be constructed initially; when adequate funding becomes available in the future, the remaining lanes will be constructed to complete the four-lane bypass. This Water Quality Certification is for Phase I only.

Project Description

4. The proposed project will be constructed largely on fill material imported to the site. The bypass requires imported borrow material from outside the project area in addition to material excavated on-site. The area from which Caltrans proposes that the contractor will take fill material for the project is at Oil Well Hill, which is located on the east side of Highway 101, approximately 0.85 mile north of the intersection of Reynolds Highway and Highway 101. The State Geology and Mining Board granted an exception to the Surface Mining and Reclamation Act (SMARA) permitting requirement on March 13, 2008 for obtaining the fill material from Oil Well Hill. The construction contractor will have the option to determine whether the source of fill material for the project will be from the Caltrans-designated borrow site at Oil Well Hill, a commercial borrow site, or another site. If

the contractor chooses to use available commercial borrow sites in the vicinity of the project to obtain the required fill, it will likely not need to obtain any additional environmental permitting when soil is exported, because commercial borrow sites typically hold preapproved operating permits. Should the contractor select an alternative, noncommercial borrow site for this project, the contractor will be responsible for obtaining proper approvals.

5. The following structures will be constructed during the project:
   - Two interchanges will be constructed for the project. The Haehl Creek interchange will be located at the south end of the project near Haehl Creek and connect the existing highway into Willits with the new highway facility. The Quail Meadows interchange will be located near the north end of Little Lake Valley and connect the new highway facility to the existing highway north of Willits.
   - The bypass will cross multiple creeks, riparian corridors, streets, and railroad rights-of-way using 22 bridges, three retaining walls, and a one mile long viaduct that will span the regulated floodway.
   - Six bridges will be constructed in the Haehl Creek interchange area, one for each of the following:
     1. Northbound freeway lanes separation over State Route (SR) 20
     2. Southbound freeway lanes separation over SR 20
     3. Southbound off-ramp over Haehl Creek
     4. Northbound on-ramp over Haehl Creek
     5. Northbound freeway lanes over Haehl Creek
     6. Southbound freeway lanes over Haehl Creek

   - A culvert will be replaced during improvement of the proposed new Schmidbauer Ranch access road.

   - Two retaining walls will be constructed in the Haehl Creek interchange area adjacent to Haehl Creek:
     1. East side of northbound lanes
     2. West side of northbound on-ramp

   - One retaining wall will be constructed on the west side of the southbound roadway lanes, just south of Center Valley Road.

   - Two bridges will be constructed to cross East Hill Road:
     1. One bridge for the southbound roadway lanes (Phase 1)
     2. One bridge for the northbound roadway lanes (Phase 2)

- Two bridges will be constructed to cross the middle reach of Haehl Creek south of Shell Lane:
  1. One bridge for the southbound roadway lanes (Phase 1)
  2. One bridge for the northbound roadway lanes (Phase 2)

- Two viaduct structures will be constructed to span the floodway:
  1. Southbound (Phase 1)
  2. Northbound (Phase 2)

- Two bridges will be constructed to cross over the North Western Pacific Rail Road tracks in the Quail Meadows interchange area, one for each of the following:
  1. U.S. Highway 101 Willits Bypass
  2. Southbound roadway lanes (Phase 1)
  3. Northbound roadway lanes (Phase 2)

- Two bridges will be constructed to cross the new connector road to existing U.S. Highway 101 in Quail Meadows Interchange area:
  1. One for the southbound roadway lanes (Phase 1)
  2. One for the northbound roadway lanes (Phase 2)

- Six bridges will be constructed to cross Upp Creek directly north of the Quail Meadows interchange, one for each of the following:
  1. Southbound roadway lanes (Phase 1)
  2. Northbound roadway lanes (Phase 2)
  3. Northbound on-ramp (Phase 1)
  4. Northbound on-ramp (Phase 2)
  5. Southbound off-ramp
  6. Roundabout local intersection

- The proposed alignment encroaches upon the 100 year floodplain. The design includes two elevated structures, which make up the floodway viaducts. The purpose of this design feature is to span the floodway. The Willits Bypass Floodplain Evaluation Report, dated September 2006, concludes that the project will not increase the base flood elevation of the floodway, and does not constitute a significant floodplain encroachment as defined in 23 CFR 650.105(q). The viaduct will be located in the central part of the project area and will span Center Valley Road, the lower reach of Haehl Creek just upstream of the confluence with Baechtel Creek, Hearst Willits Road, Baechtel and Broaddus Creeks at their confluence (beginning of the Outlet Creek designation), the WWTP, and Mill Creek. The approximately 6,000-foot long structures will consist of separate northbound and southbound elevated viaduct

superstructures. The total area of both viaducts would be 11.6 acres. Each of the viaducts will be approximately 42.6 feet wide. The edge to edge distance between the structures will be approximately 31.2 feet, and each will have a 16.5 foot minimum clearance underneath. The viaducts will require supporting columns, ranging in size from 4.5 to 7 feet in diameter.

Proposed Impacts to Wetlands and Surface Waters within the Regional Water Board's Jurisdiction

6. The project will result in impacts to wetlands and surface waters within the Outlet Creek HSA, including Haehl Creek, Baechtel Creek, Broaddus Creek, Mill Creek, Outlet Creek, Upp Creek, Ryan Creek and two ponds (Rutledge and Niesen). Caltrans has determined that the project would directly impact a total of 89.27 acres of waters of the U.S[1]., including 83.77 acres of impacts to wetlands and 5.5 acres (12,416 linear feet) to streams and ponds also identified as waters of the U.S. The project would temporarily impact 29.88 acres of wetlands and 3.16 acres (9,255 linear feet) of streams and ponds identified as waters of the U.S[2]. In addition, the project would result in permanent impacts to 53.89 acres of wetlands and up to 2.34 acres (3,161 linear feet) of streams and ponds that are waters of the U.S.[3]

7. Caltrans has also determined that the project would result in 10.12 acres of temporary impacts (6,693 linear feet) and 10.88 acres of permanent impacts (8,535 linear feet) to waters of the state, including riparian areas.[4] "Waters of the

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1 Waters of the U.S. is defined in section 232.2 of title 40 of the Code of Federal Regulations and includes "all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. All interstate waters, including interstate wetlands. All other waters including intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which would or could affect interstate or foreign commerce… and wetlands adjacent to waters (other than waters that are themselves wetlands) …"

2 A temporary impact is the short term impact that occurs during the placement of fill within wetlands for access roads, or the removal of trees and vegetation along streams to construct false work and structures.

3 A permanent impact is the placement of fill within areas for the purpose of a permanent structure such as the roadway embankments for the new highway, bridge footings, or culverts within streams.

4 Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Protection of riparian areas adjacent to streams, lakes, and estuarine-marine shorelines is essential to the protection of the beneficial uses of the waterbodies. As collectively agreed to by the resource agencies with jurisdiction over this project, riparian areas are: 1) Category I Riparian Corridors, which include areas of salmonid streams and adjacent riparian areas extending 100 feet from each bank laterally from the Ordinary High Water Mark; 2) Category II Riparian Corridors, which include tributaries of Category I Riparian Corridors that are within 1,000 feet of the confluence with a Category I Stream,

State" is defined very broadly within the Water Code as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Cal. Water Code, § 13050(e)). It has been interpreted to include all Waters of the U.S., in addition to areas outside of Waters of the U.S., such as isolated wetlands, headwaters, and riparian areas above the ordinary high water mark.

8. Protecting riparian areas is essential to ensuring the protection of beneficial uses identified in the Regional Water Board's Water Quality Control Plan (Basin Plan). Riparian areas support and protect surface water quality by accumulating and filtering sediment before it reaches surface waters and providing shade for the enhancement and protection of cold freshwater habitat. In addition, riparian areas have their own beneficial uses that are recognized in the Basin Plan, such as providing terrestrial habitats, vegetation, and wildlife (WILD), providing flood peak attenuation/ flood water storage (FLD), providing water quality enhancement, including filtration, purification and erosion control (WQE), and the preservation and enhancement of wetland habitat (WET).

Proposed Mitigation

9. As part of its application for the Water Quality Certification, Caltrans submitted the *Final Mitigation and Monitoring Proposal* (Final MMP), dated June 8, 2010. To mitigate impacts to wetlands, Caltrans has proposed creating 24.33 acres of wetlands. During the project planning process Caltrans assessed over 6,000 acres of land within Little Lake Valley to identify potential mitigation for the impacts of the bypass project and contacted the property owners, requesting that they consider selling land to Caltrans for mitigation. Caltrans received responses from willing sellers of 3,157 acres, of which there was little opportunity for wetland creation. At the request of the Regional Water Board, Caltrans expanded their search to approximately 11,000 acres outside Little Lake Valley. Caltrans received responses from land owners willing to sell 2,700 acres, with little opportunity for wetland creation.

10. Prior to the beginning of ground-disturbing project construction activities, known populations of wetlands plant species to be affected by construction will either be salvaged for transportation to adjacent on-site locations, or salvaged for relocation to off-site mitigation parcels, where the harvested material will be used to topdress created wetlands. Off-site mitigation actions for wetlands creation will require site preparation, including grading uplands and modifying local hydrology; seeding

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and extending 50 feet from the OHWM on each bank; and 3) Category III Riparian Corridors, which include tributaries of Category I Riparian Corridors that are more than 1,000 feet upstream of the confluence with the Category I Stream, extending 25 feet from the OHWM on each bank.

graded areas; planting wetlands species; and monitoring for successful wetland establishment.

11. After the creation of approximately 24 acres of wetlands, the project would still result in a permanent net loss of approximately 29 acres of wetlands. State of California Executive Order W-59-93 directs all state agencies to *"ensure no overall net loss and long term net gain in the quantity, quality and permanence of wetlands acreage and values in California…"* Executive Order W-59-93 also directs all state agencies "to encourage partnerships to make restoration, landowner incentive programs, and cooperative planning efforts the primary focus of wetland conservation." To compensate for the loss of the approximately 29 acres of wetlands, the United States Environmental Protection Agency (U.S. EPA), United States Fish and Wildlife Service (U.S. FWS), United States Army Corps of Engineers (U.S. ACE), National Marine Fisheries Service (NMFS), California Department of Fish and Game (CDFG), Mendocino County Resource Conservation District (MCRCD), Willits Environmental Center (WEC) and Regional Water Board collectively agreed to and developed an ecologically based watershed approach designed to ensure no net loss of ecological functions and values. The watershed approach would provide significant improvements to the ecological functions and values of wetlands off-site of the project, but still within the Little Lake Valley[5]. (The project is planned in the west-central portion of the Little Lake Valley.) The resource agencies agreed that the mitigation should be focused within Little Lake Valley because it hosts a variety of unique ecological features, including the presence of several rare, threatened, and endangered species (e.g. anadromous fish and Baker's Meadowfoam).

12. In addition, the watershed approach option was developed in collaboration with U.S. EPA and U.S. ACE to be consistent with federal Compensatory Mitigation Rule released on April 10, 2008. (40 CFR § 230, Subpart J; 33 CFR 332.). Caltrans proposed that 1,011.13 acres of existing wetlands would be enhanced and in combination with the 24.33 acres created and 53.44 acres preserved, for a total of 1,088.90 acres of wetlands secured in perpetuity. Wetland enhancement actions include: filling in man-made drainage ditches to increase the residence time of surface waters within the wetland area; implementing a grazing management plan to reduce the impacts from cattle; and removing invasive species to promote the health and natural recruitment of native wetland species. The enhancement of wetlands will be verified through a robust monitoring and reporting program (per Condition 10) that requires Caltrans to use the California

[5] During the Willits Bypass Mitigation Development Team meetings, it was collectively agreed between the U.S. EPA, U.S. ACE, U.S. FWS, CDFG, NMFS, WEC, Caltrans, and the Regional Water Board that the most appropriate use of the mitigation funds would be a watershed approach within Little Lake Valley. The resource agencies believe, that in this case, a watershed based approach will be superior to an approach relying on wetland creation/establishment ratios..

Rapid Assessment Method (CRAM) for wetlands, as well as additional hydrology, vegetation, and surface water sampling and analysis methods to verify the enhancement of wetland functions and values. The mitigation site preservation and site protection instruments would be a combination of fee title purchase, conservation easement, or other deed restriction.

13. The Eel River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2004, the U.S. EPA established sediment and temperature total maximum daily loads (TMDLs) for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Therefore, to fully develop a watershed approach the mitigation must include a nexus to address the temperature and sediments impairments. The nexus relates how the proposed mitigation will implement additional measures to reduce stream temperatures and excessive sediment inputs into the watershed. For sediment, Caltrans has prepared an assessment of all the erosion sites located within the off-site mitigation lands, which includes the inventory, prescription, and prioritization of restoration actions that will reduce erosion and sediment delivery within the watershed. In addition, the bypass structure has been designed to reduce erosion and sediment delivery to the maximum extent practicable (MEP). For temperature impairment, the most practical way to reduce stream temperatures is to provide riparian vegetation in all areas feasible within the project limits, including bypass alignment and off-site mitigation lands (maximum site potential shade). In addition, baseline surveys will be conducted to find all areas that benefit from riparian plantings to achieve maximum site potential shade, and percent effective shade (shade on water). Additionally, the current land management practices of stream alteration and cattle grazing have potentially negative side effects on water. Therefore, the proposed grazing management plan, which is geared towards the enhancement and protection of natural resources, will be implemented to improve the overall health of the watershed.

14. Caltrans proposes to mitigate impacts to riparian areas by planting with native riparian species along approximately 48 acres (approximately 35,000 linear feet) adjacent to waters of the U.S. and State, and monitoring to ensure successful establishment. In addition, 49 acres of riparian areas would be enhanced by the following actions: expanding riparian habitat through planting native species; increasing habitat complexity; improving hydrology; controlling invasive species; and implementing a grazing management plan. A total of 104 acres of riparian areas would be secured in perpetuity. The mitigation site protection would be a combination of fee title purchase, conservation easement, or other deed restriction.

15. To mitigate for temporary and permanent impacts to waters of the U.S. and State, Caltrans proposes to enhance approximately 17 acres of streams by improving hydrology and increasing habitat complexity. The Rutledge pond will be realigned

adjacent to the bypass, and therefore its disturbance will only be a temporary impact. Additionally, Caltrans proposes to grade and modify the Neisen pond as part its plan to create wetlands. Approximately 24 acres of streams identified as waters of the U.S. and State will be protected in perpetuity. Overall, the mitigation plan would result in the purchase and/or preservation of approximately 2,100 acres of land within Little Lake Valley.

16. Caltrans proposes to remove fish passage barriers along Upp Creek, Haehl Creek and Ryan Creek. The removal and/or upgrade of these facilities would likely reduce sediment input into the creeks as well as improve the beneficial use of the creeks for migration by anadromous fish. One existing culvert in the upper Haehl Creek channel, located under the proposed highway bridge, will be permanently removed and the stream channel will be restored as a natural drainage feature. A second existing culvert in upper Haehl Creek will be replaced and the area restored during improvement of the proposed new Schmidbauer Ranch access road. An existing box culvert in the vicinity of the proposed Quail Meadows interchange and passing under US 101 will be permanently removed and the creek contoured, re-graded, stabilized, and replanted; local traffic will cross Upp Creek on the new bridge that will be on the north leg of the roundabout. Stabilization of both creek channels that pass through the interchange areas (Haehl and Upp Creeks) will consist of grade control structures located downstream of the culvert, at appropriate heights and intervals, for the distance necessary to stabilize the natural stream gradient. Fish passage design elements will comply with guidelines established by NMFS and CDFG.

17. The project will result in an increase of approximately 38 new acres of impervious surface in the Little Lake Valley. The total area of impervious surface that will exist within the project limits will be 49 acres (including new and existing impervious surface) when the first phase of the project is completed. Caltrans will provide permanent post-construction storm water treatment for approximately 43 acres of impervious surface. Storm water runoff and modifications to the local hydrograph will be controlled primarily through the use of low impact development (LID) best management practices (BMPs) such as bio-strips, bio-swales, and shallow vegetated detention basins that rely on infiltration and dispersion. In addition, where feasible, Caltrans will install and maintain traction sand traps within drain inlets along the roadway to reduce sediment delivery to Outlet Creek HSA.

18. If Caltrans uses Oil Well Hill as a borrow site for fill material, the modifications to the roadside area will allow room for additional post-construction treatment BMPs. Therefore, additional storm water treatment would be provided by treating existing Highway 101 storm water runoff.

Project Schedule

19. The proposed activities associated with the bypass project are scheduled to begin in the fall of 2010 with the projected completion of the first phase of the project near the end of 2015. The proposed project will be conducted year round; however, work within jurisdictional streams will only occur within summer months during low flow conditions from the period of June15th to October 15th. The entire project is expected to take four to five years to complete.

Federal and State Regulatory Compliance

20. Caltrans has applied for authorization from the U.S. ACE to conduct the project under an individual Department of the Army permit pursuant to the CWA, section 404. Caltrans has applied to the CDFG for a 1602 Lake and Streambed Alteration Agreement. Additionally, Caltrans has sought formal consultation and obtained Biological Opinions from the U.S. FWS and the NMFS. On October 25, 2006, Caltrans certified a Final Environmental Impacts Statement / Environmental Impact Report (FEIS/EIR - State Clearing House No. 1990030006) for the project in order to comply with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). On December 15, 2006, Caltrans filed a Notice of Determination (NOD) for the proposed project. On December 18, 2006, Caltrans filed a Record of Decision (ROD) for the proposed project. A Supplemental Environmental Impact Report (EIR) was prepared pursuant to CEQA. The draft report was signed on November 15, 2009. Comments were received during the circulation period, which ended January 19, 2010. The Final Supplemental EIR was completed in May 2010, with potential impacts to NCSG determined to be less than significant after mitigation.

Total Maximum Daily Loads and Compliance with Water Quality Standards

21. The Eel River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2004, the U.S. EPA established sediment TMDLs for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Roads are a significant source of sediment in the watershed (directly, from surface erosion, and, indirectly, by triggering landslides). In addition, activities that impact the riparian zone and reduce riparian vegetation are identified as sources contributing to increased stream temperatures. A focus on measures to reduce sediment discharges to surface waters from roads in the watershed, and measures to avoid, minimize, and mitigate impacts on riparian zones is essential for achieving TMDL compliance.

22. Pursuant to Regional Water Board Resolution R1-2004-0087, *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region* (Sediment TMDL Implementation Policy), the Executive Officer is directed to "rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste."

23. To ensure compliance with sediment, temperature and other related Water Quality Objectives within the Basin Plan, and consistent with the U.S. EPA-established TMDLs, adequate wetland and riparian protection and stringent requirements to avoid, minimize, and mitigate the sediment and temperature impacts associated with the proposed project will be incorporated as enforceable conditions this Water Quality Certification. In addition, Caltrans will be required to conduct surface water monitoring, sampling, and analysis in accordance with the conditions of the Water Quality Certification. Additionally, storm water runoff monitoring, sampling, and analysis will be conducted as required by the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California, Department of Transportation (Caltrans) Properties, Facilities and Activities Order No. 99 – 06 - DWQ. The surface water data collected will be utilized to assess the adequacy of BMPs during construction as well as site specific mitigation measures proposed to minimize impacts to the environment, including sediment and temperature impacts.

24. The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. This Order is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater, and does not otherwise authorize degradation of the waters affected by this project.

California Environmental Quality Act

25. On October 25, 2006, Caltrans certified the FEIS/EIR (State Clearing House No. 1990030006) for the project in order to comply with the NEPA and CEQA. On December 15, 2006, Caltrans filed a NOD for the proposed project. On December 18, 2006, Caltrans filed a ROD for the proposed project. The Final Supplemental

EIR for NCSG was completed in May 2010. As a Responsible Agency, the Regional Water Board complies with CEQA by considering the FEIS/FEIR prepared by the Lead Agency (Caltrans) and by reaching its own conclusions on whether and how to approve the project involved. (Cal. Code Regs, tit. 14, § 15096.) The Regional Water Board has considered the FEIS/FEIR and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment. The Regional Water Board's conclusions on the FEIS/FEIR and findings for impacts to resources within the jurisdiction of the Regional Water Board are included in Attachment 2 to this Water Quality Certification and incorporated herein.

Receiving Waters:	Wetlands, Haehl Creek, Baechtel Creek, Broaddus Creek, Mill Creek, Outlet Creek, Upp Creek, and Ryan Creek Eel River Hydrologic Unit No.111.00 Outlet Creek Hydrologic Sub-Area No. 111.61
Filled or Excavated Areas:	Permanent - wetlands: 53.89 acres Permanent - streams and ponds: 2.34 acres Permanent - riparian areas: 10.88 acres Temporary - wetlands: 29.88 acres Temporary - streams and ponds: 3.16 acres Temporary - riparian areas: 10.12 acres
Total Linear Impacts:	Permanent - wetlands: 20,222 linear ft (2.83 miles) Permanent - streams and ponds: 3,161 linear ft (0.6 miles) Permanent - riparian areas: 8,535 linear ft (1.62 miles) Temporary - wetlands: 21,463 linear ft (4.07 miles) Temporary - streams and ponds: 9,255 linear ft (1.75 miles) Temporary - riparian areas: 6,693 linear ft (1.27 miles)
Dredge Volume :	None
Fill Volume :	Permanent - wetlands: 358,083 cubic yards Permanent - streams and ponds: 15,099 cubic yards Permanent - riparian areas: 72,846 cubic yards Temporary - wetlands: 167,682 cubic yards Temporary - streams and ponds: 20,581 cubic yards Temporary - riparian areas: 67,764 cubic yards

Latitude/Longitude:	39.3752 N/123.3249 W (Southern Interchange) 39.4392 N/123.2563 W (Northern Interchange)
Expiration:	This Water Quality Certification authorizes dredge and fill activities for ten years following the date of issuance or until the U.S. ACE CWA Section 404 permit expires. If this Water Quality Certification Expires and the project does not comply with the proposed application, findings, and conditions of this Order, the Regional Water Board may enroll the project in the appropriate regulatory tool as determined by the Executive Officer. Conditions and monitoring requirements outlined in this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE Caltrans – Highway 101 – Willits Bypass Project, WDID No. 1B10019WNME, as described in the application will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that Caltrans complies with the requirements and conditions specified in this certification and the activity being limited and all proposed mitigation being completed in compliance with the applicant's project description, as set forth in the application and applicable documents received by the Regional Water Board from Caltrans. Discharges from these projects are also regulated under the State Water Resources Control Board Order No. 2003-0017-DWQ, "Statewide General Waste Discharge Requirements for Dredge or Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this Order.

STANDARD CONDITIONS

1. This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. The validity this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the application.

4. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited, and all proposed revegetation and mitigation being completed, in strict compliance with the applicant's project description, as approved herein, and b) compliance with all applicable water quality requirements and water quality control plans including the requirements of the Basin Plan, and amendments thereto.

COMPENSATORY MITIGATION CONDITIONS

5. Caltrans shall submit plans and reports to the satisfaction of the Executive Officer of the Regional Water Board by all dates and time frames detailed in this Order, unless an exception is granted by the Executive Officer, or all bypass construction activities shall cease and desist, until the Regional Water Board authorizes operations.

6. Caltrans is ultimately responsible for the success of all mitigation performance standards, success criteria, and long term management actions.

7. Caltrans shall mitigate the project impacts by implementing the Caltrans-prepared *Final Mitigation and Monitoring Proposal (Final MMP)*, adopted June 8, 2010. At a minimum, the mitigation shall result the enhancement of approximately 1,011 acres of existing wetlands, the creation of 24 acres, the preservation of 53 acres for a total of approximately 1,088 of wetlands to be secured in perpetuity. In addition, Caltrans must mitigate impacts to riparian areas (waters of the State) by creating 47.57 acres, enhancing 48.51 acres, and securing in perpetuity 104 acres. Additionally the mitigation must enhance 27.58 acres and preserve 24.5 acres of waters of the U.S. and State.

8. At least 90 days prior to conducting any channel- ground- or vegetation-disturbing activities associated with bypass construction and no later than December 31, 2010; Caltrans shall acquire by fee title, easement, or deed restriction and permanently preserve all the mitigation lands identified in the Final MMP, dated June 8, 2010. Caltrans must maintain the properties to prohibit any owner/occupier of property to be used for mitigation from using that land, or allowing activities on the land that would interfere with the use of the property as mitigation including dredging, filling, modifying drainage patterns, or removing any vegetation within waters of the State, including riparian areas.

9. Caltrans shall submit a restoration work plan for the erosion sites identified in Appendix J of the final MMP, to the Executive Officer of the Regional Water Board for review, consideration, and concurrence by April 30, 2012. The restoration plan shall include the following locations and shall have work completed by October 15, 2012:
   - Outlet Creek (108-010-06);
   - Outlet Tributary (108-030-04;
   - Berry Creek tributaries (108-070-04); and
   - Davis Creek tributaries (108-070-13).

   The erosion site restoration work plan shall be submitted to the, U.S. ACE, CDFG, and the Executive Officer of the Regional Water Board for prior review, consideration, and concurrence. The restoration plans shall include:
   - Existing functions and conditions (wetted channel width, pool/riffle ratio, mean/maximum depths, complexity, shade/cover);
   - List and plot of native species to be planted, density of plantings;
   - Detailed design plans and cross-sections;
   - Restoration methods and materials; and
   - Water diversion plans (if necessary).

10. Caltrans must implement the monitoring and reporting program (MRP) set forth in Attachment 3. The MRP is designed to collect data and provide reports that assess the biological, chemical, physical conditions of resources within the jurisdiction of the Regional Water Board for both the bypass footprint alignment and the associated mitigation lands. The required technical reports outlined in the MRP are necessary for the Regional Water Board to appropriately determine whether or not the project will adequately comply with the Basin Plan and all applicable Water Quality Standards and provide the mitigation necessary to compensate for the impacts to jurisdictional resources. The results of the monitoring requirements outlined in the MRP shall be used to develop performance standards and success criteria for the on-site repair areas (bypass alignment) and the off-site mitigation lands. Additionally, the data will be used to demonstrate the enhancement and protection of beneficial uses and long term TMDL implementation for the receiving waters with the Outlet Creek HSA. The baseline reports are due to the Regional Water Board by January 31, 2012. In addition, the revised MMP including revised management plans shall submitted to the Executive Officer of the Regional Water Board by April 30, 2012, for review, consideration, and concurrence. Caltrans may request revisions to the MRP by submitting a plan to the Executive Officer of the Regional Water Board for review, consideration, and concurrence.

11. Subsequent to obtaining baseline information on the mitigation parcels, and no later than April 30, 2012, Caltrans shall submit a revised grazing management plan to the Executive Officer of the Regional Water Board for review, consideration, and concurrence. If it is determined by Regional Water Board staff that the grazing practices are not implemented in accordance with the approved management plan and pose a potential threat to water quality the Regional Water Board will adopt Individual Waste Discharge Requirements (WDRs) for the short term and long term grazing practices under Porter-Cologne Water Quality Control Act authority.

12. Herbicides and pesticides shall not be used on the bypass or mitigation parcels. If Caltrans or the long term manager has a compelling case as to why herbicides and pesticides should be used, they may submit a plan to the Regional Water Board for Executive Officer review, consideration, and concurrence.

13. Caltrans shall provide detailed designs and implementation schedule for the Ryan Creek Fish Passage projects. Final plans will be prepared and submitted to the Executive Officer of the Regional Water Board for review and concurrence no later than June 30, 2012. Caltrans shall complete construction of the South Fork Ryan Creek culvert project no later than October 15, 2013.

14. At least 90-days prior to initiating channel- ground- or vegetation-disturbing activities on Oil Well Hill, Caltrans shall submit the following information to the Executive Officer of the Regional Water Board for review, consideration, and concurrence:

    a) A geotechnical report on the site specific hydrology and geology of the Oil Well Hill borrow area. The report shall identify potential hazards and corrective actions in regards to slope stability, ground water interception, and the potential for mass wasting;
    b) A site specific land restoration/reclamation plan;
    c) A surface water monitoring plan to address storm water runoff discharges to and from waters of the State, and any potentially new waters of the State (springs or seeps) that may develop as a result of excavation or any activities on Oil Well Hill.
    d) A revised risk level assessment for the entire project (Oil Well Hill, bypass alignment, and mitigation sites).

    If it is determined by Regional Water Board staff that the reclamation/restoration activities are not implemented in accordance with the approved plan and pose a potential threat to water quality, the Regional Water Board will adopt individual WDRs under Porter-Cologne Water Quality Control Act authority.

15. At least 90 days prior to conducting any channel- ground- or vegetation-disturbing activities Caltrans shall:

    a) Appoint an appropriate land manager that is approved by the Executive Officer of the Regional Water Board.
    b) Obtain the land manager's concurrence with the final MMP and associated management plans.
    c) Recalculate the Property Analysis Record (PAR) and long term endowment to include all the conditions of this Order, projected changes to the short term and long term management plans for long term manager approval.

16. The land manager shall comply with all conditions within this Order and shall submit confirmation to the Regional Water Board that they approve the final MMP and any future modifications thereto, including but not limited to: associated plans; PAR; long term endowment; and acceptance of all conditions of this Order. Any revisions or modifications to the final MMP (e.g. work plan, grazing plan, long term management plan, adaptive management actions or plans, stream alteration plans or actions, and flood control plans or actions) shall cause an open review period of the PAR and endowment and shall be approved by the land manager. The open review period allows the land manager and Caltrans to revisit the PAR and endowment to ensure the revised mitigation actions are appropriately funded. In addition, any change in the PAR, endowment or final MMP shall be submitted to the U.S. ACE, CDFG, and the Executive Officer of the Regional Water Board for review, consideration, and concurrence.

17. Mitigation and monitoring requirements outlined in this Order are not subject to an expiration date, and remain in full effect and are enforceable.

GENERAL CONDITIONS

All conditions of this order apply to Caltrans (and all its employees) and all contractors (and their employees), sub-contractors (and their employees), the land manager, and any other entity or agency that performs activities or work on the project (including the off-site mitigation lands) as related to this Water Quality Certification.

18. This Water Quality Certification covers the construction of Phase I only.

19. All conditions required by this Order shall be included in the Plans and Specifications prepared by Caltrans for the Contractor. In addition, Caltrans shall require compliance with all conditions included in this Order in the bid contract for this project and the worker training program requirement per Condition 27 below.

20. Caltrans shall construct the project in accordance with the project described in the application and the findings above, and shall comply with all applicable water quality requirements and Water Quality Standards as detailed in the Basin Plan.

21. Any change in the design or implementation of the project that would have a significant or material effect on the findings, conclusions, or conditions of this Order must be submitted to the Executive Officer of the Regional Water Board for prior review, consideration, and concurrence.

22. At least 90 days before initiating channel- ground- or vegetation-disturbing activities associated with construction, Caltrans shall submit to the Regional Water Board a technical analysis of the proposed haul road(s) and demonstrate that the contractor's proposal will not impact the 100-year floodplain. All temporary bridges, culverts, haul roads, or other structures that will remain in place after October 15 shall be designed to pass the 100-year flood event. Structures and materials not designed to withstand high flows or 100-year flood shall be removed from the floodplain prior to October 1st and the associated areas shall be appropriately stabilized to prevent erosion and sediment discharges to "Waters of the State".

23. Caltrans shall provide a copy of this Order, associated attachments, and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ to the contractor, all subcontractors, and all utility companies conducting the work, and require that copies remain in their possession at the work site. Caltrans shall be responsible for work conducted by its employees, contractors, subcontractors, utility companies, and land manager.

24. The Regional Water Board shall be notified in writing each year at least five working days (working days are Monday – Friday) prior to the commencement of ground disturbing activities, major concrete pours, dewatering activities, or water diversion activities with details regarding the construction schedule, in order to allow Regional Water Board staff to be present on-site during installation and removal activities, and to answer any public inquiries that may arise regarding the project. Caltrans shall provide Regional Water Board staff access to the project site to document compliance with this order.

25. Caltrans shall provide monthly updates and coordinate with the City of Willits on their construction schedule of work to avoid conflicts with the WWTP during construction and to avoid potential cumulative impacts.

26. The Resident Engineer (or appropriately authorized agent) shall hold on-site water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on how to avoid violations and

procedures for reporting violations. The meetings shall be held at least every other week, before forecasted storm events, and when a new contractor or subcontractor arrives to begin work at the site. The contractors, subcontractors and their employees, as well as any inspectors or monitors assigned to the project, shall be present at the meetings. Caltrans shall maintain dated sign-in sheets for attendees at these meetings, and shall make them available to the Regional Water Board on request.

27. Caltrans shall conduct an environmental awareness and compliance training program for all contractors, sub-contractors and Caltrans staff working on the project and shall be approved by the Executive Officer of the Regional Water Board. The training program shall present the environmental regulations and various permit conditions that Caltrans, the contractors, and land manager shall comply with and the applicable measures established for the project to minimize impacts to water quality and avoid sensitive resources, habitats, and species. The training program shall be conducted at least once annually during the construction of the bypass, and is required for all employees, contractors, sub-contractors, and other entities prior to performing any work or monitoring activities on the project. The training program must emphasize that Caltrans and the contractors are legally liable for compliance with all environmental regulations and permit conditions. In addition, the training program must emphasize a clear understanding of all applicable permits and conditions thereof. Caltrans shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to Regional Water Board staff upon request.

28. Pursuant to its authority under Section D(2) of the Caltrans Storm Water MS4 permit, the Regional Water Board hereby requires Caltrans to conduct a risk determination in accordance with the State Water Resources Control Board (SWRCB) Construction General Permit (CGP) Order No. 2009-0009-DWQ for the entire area of the bypass and the mitigation sites. In addition, Caltrans shall submit the Storm Water Pollution Prevent Plan (SWPPP) in an electronic format using the Storm Water Multi-Application Reporting and Tracking System (SMARTS). http://smarts.waterboards.ca.gov/. Risk determination shall include the time frame (i.e. number of years) that will be required to completely construct the bypass. Caltrans shall submit the SWPPP, including the risk level determination(s) 30 days prior to initiating channel- ground- or vegetation-disturbing activities.

29. If the contractor elects to use Oil Well Hill as a borrow site, Caltrans shall recalculate the risk determination to fully include the borrow site and the entire area of the bypass, and the mitigation sites in the risk analysis. In addition, the risk

determination shall include the time frame, in years that will be required to completely construct the bypass and fully (to the satisfaction of the Regional Water Board) complete reclamation on Oil Well Hill. Additionally, if the Oil Well Hill site is used then Caltrans shall develop and install the appropriate post-construction storm water treatment measures along existing Highway 101 to the maximum extent practicable (MEP).

30. All activities and best management practices (BMPs) shall be implemented according to the submitted application and the conditions in this Order. BMPs for erosion, sediment, turbidity and pollutant control shall be implemented and in place at commencement of, during, and after any ground clearing activities, construction activities, or any other project activities that could result in erosion, sediment, or other pollutant discharges to waters of the State. The BMPs shall be implemented in accordance with the Caltrans Construction Site Best Management Practice Manual (CCSBMPM) and all contractors and subcontractors shall comply with the CCSBMPM. In addition, BMPs for erosion and sediment control shall be utilized year round, regardless of season or time of year. Caltrans shall stage erosion and sediment control materials at the work site. All BMPs shall be installed properly and in accordance with the manufacturer's specifications. If the project Resident Engineer elects to install alternative BMPs for use on the project, Caltrans shall submit a proposal to Regional Water Board staff for review and concurrence.

31. Caltrans shall prioritize the use of wildlife-friendly biodegradable (not photo-degradable) erosion control products wherever feasible. Caltrans shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or after the completion date of the project). If Caltrans finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. Caltrans shall not use or allow the use of erosion control products that contain synthetic materials within waters of the United States or waters of the State at any time. Caltrans shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.

32. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited. If construction dewatering of groundwater is found to be necessary, Caltrans shall use a method of water disposal other than disposal to surface waters (such as land disposal) or Caltrans shall apply for coverage under the Low Threat Discharge Permit or an individual National Pollutant Discharge Elimination System (NPDES) Permit and receive notification of coverage to discharge to surface waters, prior to the discharge.

33. Caltrans is prohibited from discharging waste to waters of the State, unless explicitly authorized by this Order. For example, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, welding slag, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into waters of the State. In addition, none of the materials listed above shall be placed within 150 linear feet of waters of the State or where the materials may be washed by rainfall into waters of the State.

34. Herbicides and pesticides shall not be used on the bypass. If Caltrans has a compelling case as to why herbicides and pesticides should be used, they may submit a request along with a BMP plan to the Executive Officer of the Regional Water Board for review, consideration, and concurrence.

35. Caltrans shall submit, subject to approval by the Regional Water Board staff, a dewatering and/or diversion plan that appropriately describe the dewatered or diverted areas and how those areas will be handled during construction. The diversion/dewatering plans shall be submitted no later than 30 days prior to conducting the proposed activity. Information submitted shall include the area or work to be diverted or dewatered and method of the proposed activity. All diversion or dewatering activities shall be designed to minimize the impact to waters of the State and maintain natural flows upstream and downstream. All dewatering or diversion structures shall be installed in a manner that does not cause sedimentation, siltation or erosion upstream or downstream. All dewatering or diversion structures shall be removed immediately upon completion of project activities. The in-channel work within fish-bearing streams will only be conducted between June 15th and October 15th. This Water Quality Certification does not authorize Caltrans to draft surface waters.

36. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be at least 150 linear feet beyond of waters of U.S. and the State with the exception of cranes and stationary equipment which shall only be refueled using a company certified by the CDFG. Proper certification and documentation of fueling (field logs) shall be provided to the Regional Water Board upon request. The Regional Water Board shall provide concurrence with each fueling location prior to fueling equipment within waters of the State. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall not result in a discharge or a threatened discharge to any waters of the State or the U.S. At no time shall Caltrans or its contractors allow use of any vehicle or equipment, which leaks any substance that may impact water quality.

37. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated

project activities shall cease immediately until adequate BMPs are implemented. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

38. Caltrans shall implement appropriate BMPs to prevent the discharge of equipment fluids to the stream channel. The minimum requirements will include: storing hazardous materials at least 150 linear feet outside of the stream banks; checking equipment for leaks and preventing the use of equipment with leaks; pressure washing or steam cleaning equipment to remove fluid residue on any of its surfaces prior to its entering any stream channel in a manner that does not result in a discharge to Waters of the State.

39. Spill kits are required at each fueling location and at each location that work will be conducted with streams. If the event of an unauthorized release of fuel (spill or leak) to waters of the State, Caltrans shall immediately stop work and conduct the following measures:

    a) Notify the appropriate agencies including the Regional Water Board, CDFG, and the Office of Emergency Services (OES) at 1(800) 852-7550;
    b) Utilized the appropriate spill kits for containment and clean up of the release;
    c) Collect samples within the release, 50 feet downstream, and downstream to the full extent of the release; and
    d) Analyze samples for total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethlybenzene, total xylenes (BTEX).

40. The project shall have no more than 17 acres of disturbed soil area (DSA) at any time. Caltrans shall request approval from the Regional Water Board if an exception from this requirement is needed. Request for exceptions must include the locations, size of area, anticipated duration of exposure (e.g. DSA without BMPs), and a location specific rain event action plan (REAP). All disturbed soil areas and exceptions to the 17 acre limit shall be adequately documented in the site specific SWPPP.

41. Caltrans shall establish and clearly define stream setbacks that limit construction activities and prohibit ground disturbing activities within 50 linear feet of streams during the rainy season (October 15th to May 15th). If an exception from this requirement is needed for a specific location, Caltrans shall request approval from the Regional Water Board at least 5 working days in advance. At no time shall in-stream activities be conducted outside the work window of June 15th to October 15th. Exceptions may be granted by the Executive Officer of the Regional Water Board on a case by case review, only if the streams are dry or have minimal flow, and CDFG and NMFS have concurred.

42. If work is allowed within the stream channel or on the banks outside of the above referenced work window, Caltrans shall monitor the seventy-two (72) hour forecast from the National Weather Service. When forecast indicates a probability of precipitation of 50 percent or greater within the 72-hour period, or at the onset of any precipitation, ground disturbing activities shall cease and erosion and sediment control measures shall be implemented to stabilize exposed soils and prevent the mobilization of sediment into the stream channel or adjacent wetland or riparian areas. Caltrans bears full liability should the BMPs employed fail to prevent any discharge to waters of the State that exceeds applicable water quality standards or is beyond the certified area of impact. All earthwork and ground disturbing activities halted due to precipitation may resume when precipitation ceases and a 50 percent or less chance of precipitation is forecast throughout the duration of the subsequent 72-hour weather forecast.

43. Caltrans and their contractor are not authorized to discharge wastewater (e.g., water that has contacted uncured concrete or cement, or asphalt) to surface waters, ground waters, or land. Wastewater may only be disposed of to a sanitary waste water collection system/facility (with authorization from the facility's owner or operator) or a properly-licensed disposal or reuse facility. If Caltrans or their contractor proposes an alternate disposal method, Caltrans or their contractor shall apply for a permit from the Regional Water Board. Plans to reuse or recycle wastewater require written approval from Regional Water Board staff.

44. Any potentially hazardous waste(s) (solids, liquids, or slurries) derived or encountered in this project shall undergo the appropriate characterization to demonstrate compliance will all applicable waste disposal laws and regulations. If unanticipated or anticipated waste are encountered or created during the project, Caltrans shall notify the Regional Water Board immediately and at least within 24 hours. Caltrans or their contractor shall prepare applicable work plans for handling, treating, transporting, and disposing of waste. The work plans shall be prepared and signed by an engineer or geologist with the appropriate and valid California licenses.

45. Caltrans shall provide analysis and verification that placing non-hazardous waste or inert materials (which may include discarded product or recycled materials) will not result in degradation of water quality, human health, or the environment. All project-generated waste shall be handled, transported, and disposed in strict compliance with all applicable State and Federal laws and regulations. When operations are complete, any excess material or debris shall be removed from the work area and disposed of properly and in accordance with the Special Provisions for the project and/or Standard Specification 7-1.13, Disposal of Material Outside the Highway Right of Way. Caltrans shall submit to the Regional Water Board the

satisfactory evidence provided to the Caltrans Engineer by the Contractor referenced in Standard Specification 7-1.13. In accordance with State and Federal laws and regulations, Caltrans is liable and responsible for the proper disposal of waste generated by their project.

46. Wastewater from invasive species control and equipment washing must be disposed of at an appropriately permitted facility or comply with the proper NPDES requirements for discharges. Wastewater from vehicle cleaning will not be allowed for on-site use for any purposes (e.g. dust control) unless Caltrans can demonstrate to the satisfaction of the Regional Water Board that the wastewater has been adequately treated for potential pollutants and invasive species.

47. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill on-site shall be performed in accordance with all State and Federal policies and established guidelines and must be submitted to the Regional Water Board for review and concurrence.

48. Only clean washed spawning gravel (0.5" – 4") with a cleanliness value of at least 85, using the Cleanness Value Test Method for California Test No. 227 will be placed in the streams. Gravel bag fabric shall be nonwoven polypropylene geotextile (or comparable polymer) and shall conform to the following requirements:
    - Mass per unit area, grams per square meter, min ASTM Designation: D 5261 – 270
    - Grab tensile strength (25-mm grip), kilonewtons, min. ASTM Designation: D4632* 0.89
    - Ultraviolet stability, percent tensile strength retained after 500 hours, ASTM Designation: D4355, xenon arc lamp method 70 or appropriate test method for specific polymer
    - Gravel bags shall be between 600 mm and 800 mm in length, and between 400 mm and 500 mm in width.
    - Yarn used in construction of the gravel bags shall be as recommended by the manufacturer or bag supplier and shall be of a contrasting color. Gravel shall be between 0.5" – 4" in diameter, and shall be clean and free from clay balls, organic matter, and other deleterious materials. The opening of gravel-filled bags shall be secured to prevent gravel from escaping. Gravel-filled bags shall be between 13 kg and 22 kg in mass.

If an exception from this requirement is needed for a specific location, Caltrans may request that the Executive Officer of the Regional Water Board consider and approve the exception.

49. Caltrans shall retain a dedicated Water Quality Monitor to be on-site daily and document compliance with all applicable water quality requirements. At least 30 days before initiating channel- ground- or vegetation-disturbing activities, Caltrans shall submit to the Regional Water Board in writing the name, qualifications, and contact information for the designated water quality monitor(s). The water quality monitor(s) shall be knowledgeable of and have experience with the Basin Plan, and surface water monitoring procedures, protocols, quality assurance, and quality control protocols. The water quality monitor(s) shall be responsible for monitoring Project activities and/or channel- ground- or vegetation disturbing activities that result in or have the potential to result in a discharge to waters of the State.

50. The water quality monitor shall be on-site daily while project activities including all pile installation, dewatering, channel- vegetation- or ground-disturbing activities that may affect water quality to: (1) document compliance with water quality standards and conditions of this Order; (2) record the results of all required surface water monitoring; (3) evaluate the effectiveness of BMPs, mitigation measures, and avoidance measures; (4) alert key construction staff of precipitation forecasts; and (5) make stop work recommendations for activities that results in or may result in violations of this Order. The water quality monitor(s) shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections; recommendations; monitoring and sampling results; and discharges.

51. Surface water monitoring shall be conducted whenever a project activity is conducted within waters of the State (e.g. demolition, pier construction, stream diversions). Surface water monitoring shall be conducted when any project activity has, or has the potential to, mobilize sediment and/or alter background conditions within waters of the State. In order to demonstrate compliance with receiving water limitations and applicable Water Quality Standards, field measurements shall be collected whenever a project activity may alter background conditions.

52. Caltrans in conjunction with the water quality monitor shall establish effluent, upstream (background) and downstream monitoring locations to demonstrate compliance with all applicable water quality requirements, and Water Quality Objectives as detailed in the Basin Plan. The downstream location shall be no more than 50 feet from the effluent location. Field measurements shall be taken from each location four times daily for flow, pH, temperature, dissolved oxygen, total dissolved solids, turbidity and specific conductance. In addition, visual observations shall be made four times daily and include the appearance of the

discharge including color, turbidity, floating or suspended matter or debris, appearance of the receiving water at the point of discharge (occurrence of erosion and scouring, turbidity, solids deposition, unusual aquatic growth, etc), and observations about the receiving water, such as the presence of aquatic life. Measurements shall be collected from each sampling location four times daily while work is being conducted within waters of the State. Prior to conducting any and all monitoring and sampling activities required by this Water Quality Certification, Caltrans shall develop the proper Quality Assurance Project Plan (QAPP) to ensure the data gathered is valid and will be reliable for statistical evaluation.

53. Whenever, as a result of project activities, downstream measurements exceed the following Water Quality Objectives, appropriate measurements shall be collected from all monitoring locations every hour during the period of increase, and shall continue until measurements demonstrate compliance with receiving water limitations and the water quality parameters are no longer increasing as a result of project activities.

pH	<6.5 or >8.5 (any changes >0.5 units)
temperature	>0.5^{o}F above background
dissolved oxygen	<7 milligrams per liter (mg/L)
total dissolved solids	>125 mg/L
turbidity	20% above natural background
specific conductance	>200 micromhos @ 77^{o}F

If any measurements are beyond the water quality objectives 50 feet downstream of the source(s), all necessary steps shall be taken to install, repair, and/or modify BMPs to control the source(s). In addition, the overall distance from the source(s) to the downstream extent of the exceedance shall be measured.

Monitoring results shall be reported to appropriate Regional Water Board staff person by telephone within one hour of taking any measurements that exceed the limits detailed above (turbidity only if it is higher than 20 NTU as well). Upstream and downstream pictures within the working and/or disturbed area shall be taken and submitted to the appropriate Regional Water Board staff via e-mail or fax within 24 hours of the incident. All other monitoring data shall be reported on a monthly basis and is due to the Regional Water Board by the 15th of the following month.

54. Monthly Monitoring Reports: shall be submitted to the Executive Officer of the Regional Water Board. The monthly monitoring reports shall include at a minimum a summary of discharges, a summary of corrective actions taken (if necessary), photographs, all field sampling measurements and/or results, project status (i.e.

upcoming construction schedule and disturbed soil area updates), water quality monitor reports and field logs, water quality monitor reports and field logs, and all field monitoring equipment calibration logs. Caltrans shall develop, and Regional Water Board shall approve, a data management and reporting system to efficiently and effectively report sampling and monitoring data. Monthly monitoring reports are due to the Regional Water Board by the 15th of each month once work on the project has been initiated.

55. Rainy Day Reports: Caltrans shall take photos of all areas disturbed by project activities, including all excess materials disposal areas, after rainfall events that generate visible runoff from these areas in order to demonstrate that erosion control and revegetation measures are present and have been installed appropriately and successfully. A brief report containing these photos shall be submitted within 30 days of the rainfall event that generated runoff from the disturbed areas.

56. Slope Stability Reports: Caltrans shall provide yearly slope evaluation and erosion control monitoring reports for up to 10 years subsequent to the completion of the bypass project. Caltrans shall provide at least 80 percent coverage of established erosion control of all exposed areas along the bypass. To ensure the reduction of sediment transport into the Outlet Creek HSA, Caltrans shall conduct inspections prior to and subsequent to each rainy season up to 10 years after completion of the bypass. Reports shall include, at a minimum, the following information: name and title of personnel conducting monitoring and/or maintenance; observation dates; site photographs; maps including percent coverage of established erosion control and revegetation efforts; and an erosion evaluation. If the new bypass project has slope failures, excessive erosion, or causes other water quality degradation corrective actions will be required to mitigate the impacts. Established erosion control is vegetation growth, not applied erosion control product.

57. Annual Status Reports: Caltrans shall provide the Regional Water Board with an Annual Status Report no later than January 31 of every year beginning with issuance of this Order and continuing until the Regional Water Board accepts the Final Mitigation Report. Each annual report shall include, at a minimum: 1) a summary of all monitoring reports identified in this Order; 2) a general description of the status of the project site and project activities, including actual or projected completion dates, if known; 3) a summary of the annual mitigation monitoring reports and the current implementation status of each mitigation measure; 4) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and mitigating project impacts; 5) results and an evaluation of the data collected from the SWMRP; 6) Monthly Monitoring and Rainy Day Reports; and 7) A compliance table (spreadsheet) that presents each

condition of this certification, time frame (yearly calendar), project milestones and achievements, all reported discharges, and all violations of this Order.

58. Final Mitigation Report: No later than 90 days after completion of the project, including completion of all mitigation measures, Caltrans shall provide the Regional Water Board with a Final Mitigation Report. The Final Mitigation Report shall include, at a minimum: 1) a summary of all monthly monitoring reports and annual status reports; 2) copies of all mitigation monitoring reports documenting when success criteria for each of the mitigation measures were achieved; 3) all available information about mitigation measures, data collection for the SWMRP, and projects taken to implement the sediment and temperature TMDL; 4) each yearly compliance calendar; 5) an assessment of the effectiveness of the required measures in minimizing and mitigating project impacts; 6) any recommendations on how mitigation measures might be changed to more effectively minimize impacts to water quality and mitigate the impacts of future projects; 7) a final long term management plan; 8) revised PAR and endowment calculation approved by the long term manager; and 9) any other pertinent information.

59. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this Order to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Order, the Regional Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.

60. The Regional Water Board may add to or modify the conditions of this Order, as appropriate, and to implement any new or revised Water Quality Standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

61. This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by Caltrans, Caltrans shall notify the successor-in-interest of the existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board. The successor-in-interest must

send to the Regional Water Board Executive Officer a written request for transfer of this Order to discharge dredged or fill material under this Order. The request must contain the following:

a. requesting entity's full legal name
b. the state of incorporation, if a corporation
c. address and phone number of contact person
d. description of any changes to the project or confirmation that the successor-in-interest intends to implement the project as described in this Order.

62. This Water Quality Certification authorizes dredge and fill activities for ten years following the date of issuance or until the U.S. ACE CWA Section 404 permit expires. If this Water Quality Certification Expires and the project does not comply with the proposed application, findings, and conditions of this Order, the Regional Water Board may enroll the project in the appropriate regulatory tool as determined by the Executive Officer. Conditions and monitoring requirements outlined in this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

63. Please contact our staff Environmental Specialist / Caltrans Liaison Jeremiah Puget of at (707) 576-2835 or jpuget@waterboards.ca.gov if you have any questions.

_____

Catherine Kuhlman
Executive Officer

100806_JJP_CDOT_Hwy101_WillitsBypass_401cert

Attachments:

1. Response to Public Comments
2. CEQA Findings
3. Monitoring and Reporting Program
4. State Water Resources Control Board Order No. 2003-0017 -DWQ, General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification

Original sent to: Mr. Jeremy Ketchum, Caltrans, 2800 Gateway Oaks Drive, Sacramento, CA 95833

Copies sent to:

Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions,1455 Market Street, San Francisco, CA 94103-1398

Ms. Laurie Monarres, U. S. Army Corps of Engineers, 1455 Market Street, San Francisco, CA 941003

Mr. David Wickens, U. S. Army Corps of Engineers, 1455 Market Street, San Francisco, CA 941003

Mr. Jason Brush, U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, CA 94105

Ms. Melissa Scianni, U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, CA 94105

Mr. Tom Daugherty, NMFS, 777 Sonoma Avenue, Room 325, Santa Rosa, CA 95404

Mr. Ray Bosch, U.S. Fish & Wildlife Service, 1655 Heindon Road, Arcata, CA 95521

Mr. Craig Martz, California Department of Fish and Game, 601 Locust Street, Redding, CA 96001

Mr. Dave Kelly, Caltrans, P.O. Box 911, Marysville, CA 95901

Mr. Jason Meigs, Caltrans, 2800 Gateway Oaks Drive, Sacramento, CA 95833

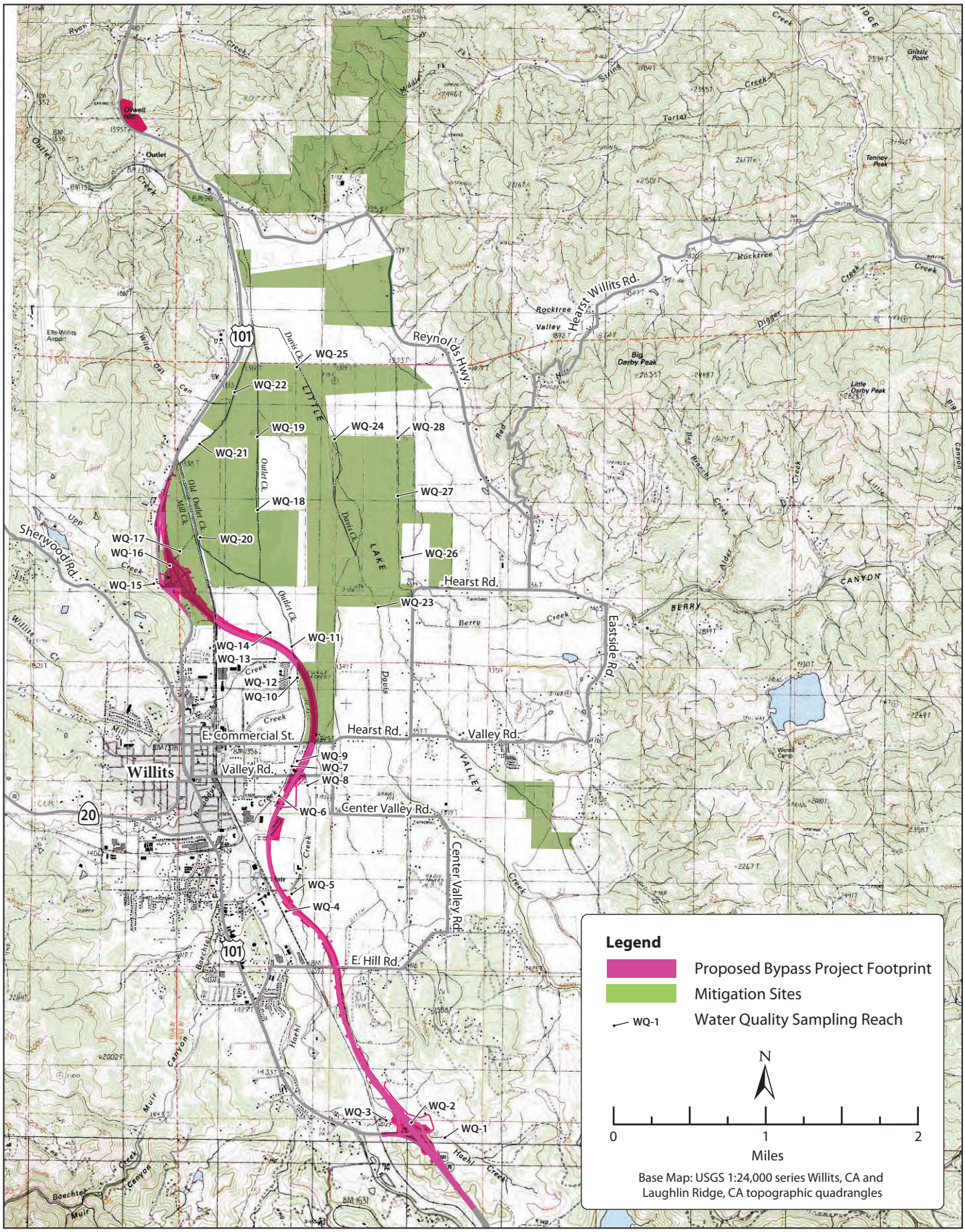
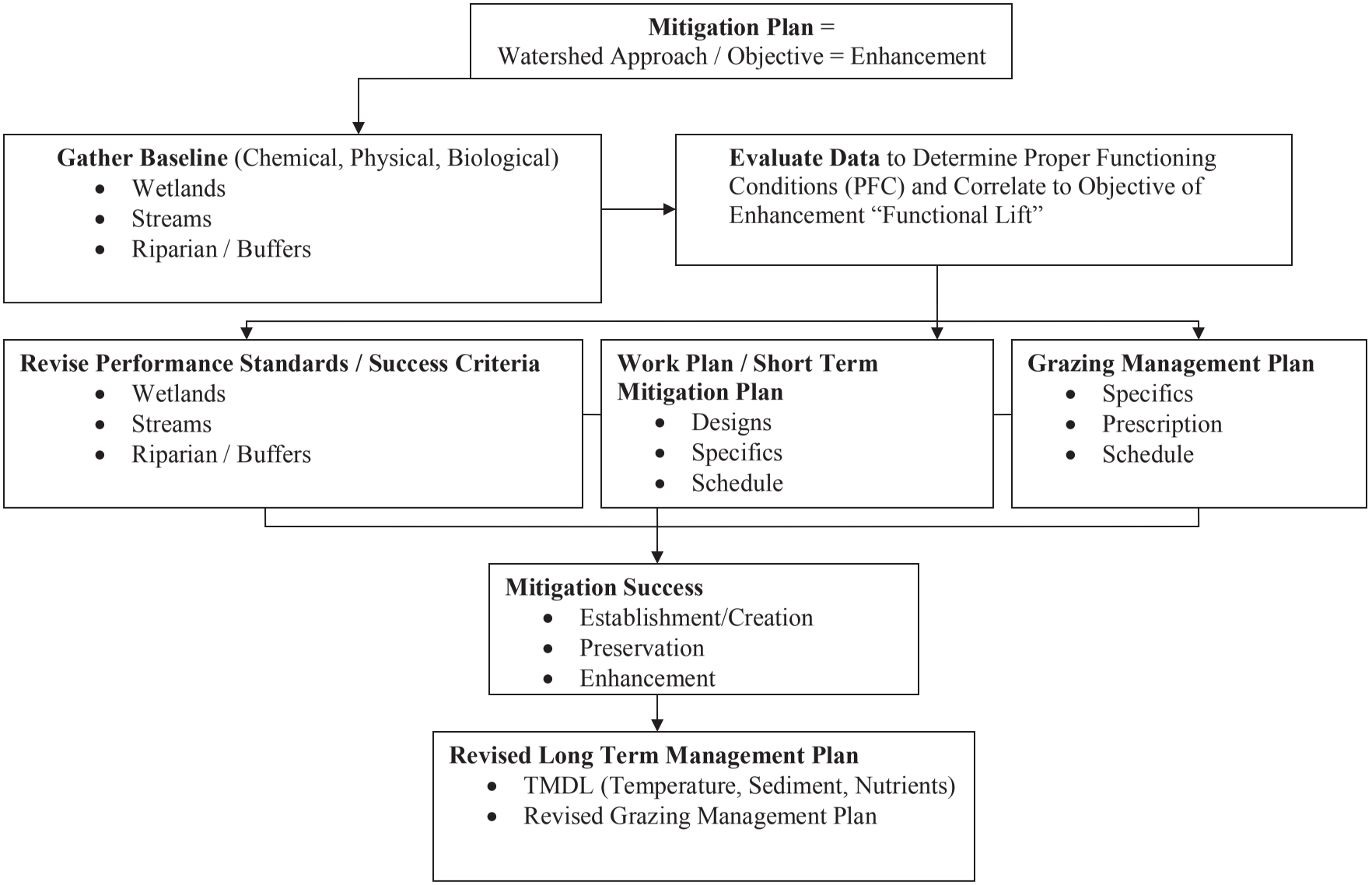


Figure 1
Location of Water Quality Sampling Reaches

APPENDIX 1
WILLITS BYPASS MITIGATION FLOW CHART



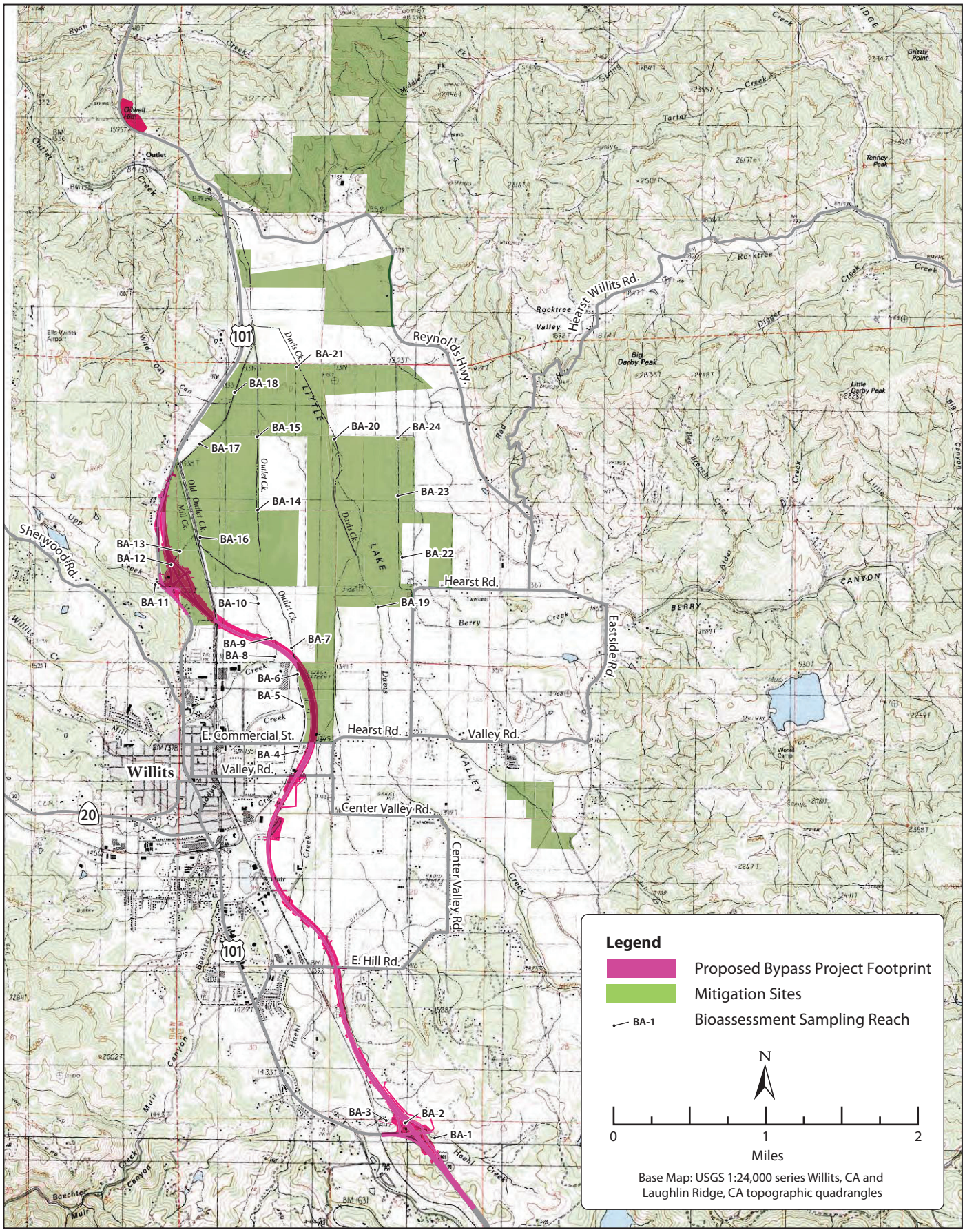


Figure 2
Location of Bioassessment Sampling Reaches

Attachment 1

Response to Comments on the Public Notice for Clean Water Act Section 401 Water Quality Certification and General Waste Discharge Requirements related to California Department of Transportation - Highway 101, Willits Bypass Project WDID No. 1B10019WNME

On April 29, 2010, the North Coast Regional Water Quality Control Board (Regional Water Board) opened a public comment period for California Department of Transportation (Caltrans) proposed Highway 101 Willits Bypass project. Regional Water Board staff received letters from 75 individuals or groups in response to the subject notice of Water Quality Certification and Waste Discharge Requirements. Of those 75, 27 were in favor of the proposed project, while 48 raised various objections. Because many of the same comments were described in different letters, Regional Water Board staff grouped comments together where appropriate, and provided one response. In order to identify where a particular comment was addressed in this response to comments, please review the attached spreadsheet.

Mitigation Plan Comment 1 (MPC-1) - *Mitigation Area vs. Adjacent Land Use*

How will the mosaic of mitigation habitats be constructed and maintained with adjacent parcels being managed for agriculture and not wetland mitigation?

Response to Mitigation Plan Comment 1 (RMPC-1)

Wetlands created pursuant to the Mitigation and Monitoring Proposal (MMP), dated June 2010, will be constructed on the offsite mitigation parcels in upland areas that are not currently jurisdictional wetlands under the Clean Water Act, Section 404. Wetland creation will be achieved through grading of high areas that are surrounded by the existing jurisdictional wetlands, as determined through Section 404 and verified by the United States Army Corps of Engineers (U.S. ACE). Additional wetland creation measures include planting native wetland plant species and monitoring for successful establishment and adequate hydrology. If these created wetlands accumulate sediment from seasonal flooding or other nonpoint source activities, such as grading, the MMP has an adaptive management component that will be triggered and actions will be taken to ensure that the wetlands achieve the success criteria set out in the MMP. Any adaptive management actions taken by Caltrans or the land managers retained to maintain the wetlands and/or mitigation parcels will be undertaken in coordination with resource agencies.

The adaptive management plan (Chapter 12) in the MMP presents a general framework and process for addressing unforeseen threats to the success of the MMP, identifying and implementing appropriate responses to those threats, and assessing the effectiveness of those responses. Adaptive management will be performed as needed by the land manager for each offsite mitigation parcel, under coordination with the stakeholder resource agencies.

In areas where development of an incompatible use adjacent to mitigation sites cannot be avoided, potential negative impacts must be evaluated and remediation steps planned and implemented. Remediation efforts may include:

- • Implementation of buffer zones within the mitigation site, where feasible, to separate sensitive biological resources on the mitigation site from adjacent development.
- • Installation of cattle barriers.
- • Installation of storm water pollution prevention measures.
- • Increase in mowing and weeding schedules.
- • Increase in irrigation or water storage capacity during plant establishment period.

Mitigation Plan Comment 2 (MPC-2) - *Natural Succession and Land Management*

How will the process of natural succession for streams and riparian areas and stream geomorphology be addressed in conjunction with the concept of highly functional habitats? How will these habitats be maintained given the ecological processes within Little Lake Valley?

Response to Mitigation Plan Comment 2 (RMPC-2)

The Regional Water Board agrees with the commenter and we raised this issue to Caltrans in our May 13, 2010, letter as a significant issue for the long term management of the mitigation lands. The Regional Water Board requested in its May 13, 2010 letter that *"Caltrans should provide information on how wetlands, streams and floodplains will interact, and have plans prepared to deal with the local hydrology and inevitable changes in stream characteristics as ecological succession occurs. Regional Water Board staff recommends conducting stream reach assessments and then utilizing them to determine the ultimate ecological / watershed goals of the proposed mitigation plan".*

For general management of the off-site mitigation parcels, a short-term maintenance plan and long-term management plan have been developed as part of the final MMP. The overall adaptive management strategy will be to evaluate and work within the constraints of the normal conditions (e.g., ongoing sedimentation due to upstream land use) and natural processes (e.g., meandering creek beds) of the mitigation sites. These normal conditions and natural processes create a dynamic environment. The mitigation parcels will be allowed to conform to the dynamic environment, responding to the normal conditions and natural processes. Adaptive management actions will avoid creating situations that require recurring intervention to redirect or compete with the Valley's normal conditions and natural processes (e.g., removal of large woody debris and gravel from streams).

Natural recruitment and succession, and changes in type of habitat will be accepted as part of this approach. For example, if a wet meadow is flooded by beaver activity downstream and changes into an emergent marsh, adaptive management to interfere with this change would not be considered prudent because such a change constitutes a landscape evolution or natural succession. In this scenario, specific actions by the land manager to reduce the flooding would not be warranted.

Similarly, if stream channel erosion is the result of lateral channel migration, adaptive management steps would not include trying to confine the channel to its original path, but may include further assessment to determine appropriate restoration options for bank stabilization, such as biotechnical bank stabilization. Another example of where adaptive management will respect the normal conditions and natural processes is where a stream begins to meander into a Baker's meadowfoam population and washes out some of the plants. The creek would not be redirected back to its previous bed and held there by artificial devices. Instead, the area of Baker's meadowfoam would be lost due to the meandering creek bed as part of the natural processes of the site.

If adaptive management becomes necessary to address unforeseen situations with this dynamic environment, adaptive management actions will avoid creating conditions that require recurring intervention to redirect or compete with Little Lake Valley's normal conditions and natural processes.

Mitigation Plan Comment 3 (MPC-3) - *Fish Migration/Passage and Habitat Creation and Enhancement*

How do the stream passage projects increase the natural functions of the stream channels within the bypass footprint, and mitigate and provide a net benefit for listed salmonids? How do improvements to Haehl, Ryan, and Upp Creeks mitigate for impacts to Baechtel, Broaddus, and Mill Creeks?

Response to Mitigation Plan Comment 3 (RMPC-3)

Fish Migration/Passage

Stabilization of both creek channels that pass through the interchange areas (Haehl and Upp Creeks) will consist of grade control structures located downstream of the culvert, at appropriate heights and intervals, for the distance necessary to stabilize the natural stream gradient. Fish passage design elements will comply with guidelines established by the National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG). The removal of the Upp Creek culvert along existing 101 and the stabilization of stream channel at the Haehl Creek interchange would likely reduce sediment input into the creeks as well as improve the beneficial use of the creeks for migration by anadromous salmonids. Regional Water Board staff recognizes that the Upp Creek and Haehl Creek interchanges were primarily designed with the bypass

structure in mind; however, they will benefit salmonids because they were designed in accordance with NMFS and CDFG requirements to help fish passage and control sediment discharge. In addition, Caltrans worked closely with NMFS, CDFG, and Regional Water Board staff at these locations to ensure that all concerns raised by the agencies were addressed. As for the Ryan Creek passage barrier, Regional Water Board staff is satisfied that this is an appropriate mitigation for impacts to listed salmonids, especially when considered in conjunction with the cumulative benefits of additional barrier removal (located further upstream) which is being planned by Mendocino County.

Caltrans has designed the project to minimize the number of permanent structures that will be constructed in creek channels. Bent 24, which is associated with the viaduct structure at the confluence of Baechtel and Broaddus Creeks, will be the only permanent bridge piling that will be constructed in the creek channel during Phase 1. All other creek crossings will consist of clear-span bridges, precluding the need for the construction and placement of permanent bridge piers within creek channels at these crossings. During construction of both project phases, a number of temporary piles to support trestles for the temporary access road and falsework construction also will be needed during project construction; however, these will be removed following construction of each phase of the project. The permanent and temporary piles that will be placed in the creek channels during construction of Phases 1 and 2 will not affect the migration pathway for upstream and downstream migrants.

In addition to enhancement and preservation of habitat on off-site mitigation parcels, Caltrans will implement stream restoration and fish passage improvements on Haehl and Upp Creeks where they cross the project footprint. Caltrans has also committed, as part of its mitigation plan, to providing the design for the North and South Fork locations of the Ryan Creek fish passage project, as well as construct the South Fork location to mitigate impacts on salmonids and jurisdictional waters of the United States. These fish passage improvements on Ryan and Upp Creeks will improve access to upstream spawning and rearing habitat for coho and Chinook salmon and steelhead relative to current conditions. Improvements to fish passage will help offset the temporary effects associated with project construction by potentially increasing the productivity of listed salmonids in these creeks through increased spawning success.

There is general agreement among CDFG's Northern Region staff that Ryan Creek is a high priority for fish passage improvement. Ryan Creek was also identified as the Number 1 priority for passage improvement in Mendocino County in an inventory of road crossings on the State Highway system in Caltrans District 1 (Lang 2005). Ryan Creek ranked as the Number 2 priority within all of District 1. Ryan Creek is the first Outlet Creek tributary located immediately downstream from Little Lake Valley. Providing access to spawning and rearing habitat that is currently obstructed on Ryan Creek will directly benefit coho salmon populations in the Middle-Upper Eel River Recovery Unit and the Outlet Creek HSA. Identifying and treating passage barriers is

consistent with the Recovery Strategy for California Coho Salmon and is identified as a Level D task (will directly contribute to recovery of coho salmon) for the Outlet Creek HSA.

Habitat Creation and Enhancement

Fish migration habitat will be further improved by the inclusion of approximately 1,700 linear feet of riparian plantings along the east bank of Baechtel Creek between where the viaduct would cross Baechtel Creek and where East Commercial Street currently crosses the creek, and along approximately 1,400 linear feet of the north bank of Mill Creek before Mill Creek passes under the Western Pacific railroad tracks. Approximately, six miles (measured along both sides of the stream banks) of riparian habitat will be created or enhanced along Category I, II, and III streams within the offsite mitigation parcels. Long stream reaches that would benefit from riparian plantings are present along both Davis and Outlet Creeks. Consultations with Craig Martz and Scott Harris of CDFG and Tom Daugherty of NMFS on April 18, 2008, indicated a preference for Category I riparian mitigation to occur on Outlet Creek, as it supports populations of all three listed fish species (salmonid and steelhead) potentially affected by the bypass project. Therefore, Caltrans has proposed approximately 10,000 linear feet of riparian vegetation to provide shade on Outlet Creek.

Additional mitigation includes restoration to areas along Outlet Creek and Berry Creek that are undergoing bank erosions or that have large headcuts. These areas were identified in an erosion assessment conducted in May 2010. The erosion assessment consists of an inventory of sediment contributing sites within the mitigation parcels and a prioritization of those restoration efforts. The recommended treatments for these sites include bio-engineered bank stabilization efforts to reduce sediment input, reconnect the streams with their adjacent floodplains, and further improve fish habitat.

Mitigation Plan Comment 4 (MPC-4) – *Mitigation Lands Purchase*

Caltrans must provide proof that all mitigation lands have been purchased without any restrictions that prohibit the land manager from complying with the United States Environmental Protection Agency (USEPA) and USACE joint 2008 Compensatory Mitigation for Losses of Aquatic Resources (Federal Mitigation Rule).

Response to Mitigation Plan Comment 4 (RMPC-4)

The federal rule for Compensatory Mitigation for Losses of Aquatic Resources (federal mitigation rule) does not apply to the Regional Water Board. However, the Water Quality Certification is conditional upon Caltrans obtaining the necessary rights to all of the properties necessary to conduct the creation and enhancement of wetlands set forth in the MMP. The water quality certification requires that at least 90 days prior to conducting any channel- ground- or vegetation-disturbing activities, Caltrans shall

acquire by fee title or conservation easement and permanently preserve all the mitigation lands identified in the Final MMP, dated June 8, 2010. Caltrans must maintain the properties for the benefit of the natural resources and prohibit any activities on the mitigation lands (e.g., dredging, filling, or removing any vegetation within or adjacent to streams and wetlands) that would interfere with the enhancement and preservation of those natural resources used as mitigation.

Mitigation Plan Comment 5 (MPC-5) - *Mitigation Credits and Preservation*

Caltrans has double counted the mitigation credits for preservation and enhancement and has not adequately made a case for preservation in accordance with the Federal Mitigation Rule.

Response to Mitigation Plan Comment 5 (RMPC-5)

Regional Water Board staff recognizes that Caltrans double counted credits (acreages) for preservation and enhancement. However, as noted in the Regional Water Board public notice dated April 29, 2010, the mitigation would result in the purchase and/or preservation of approximately 2,100 acres of land within Little Lake Valley. For example, in the MMP Caltrans stated a total of 2,230 acres of wetland mitigation area; however, this is the combination enhancement and preservation. The Regional Water Board will not credit the double counting of these acres and considers preservation in perpetuity a mandatory component of compensatory mitigation for this project. The numbers presented in the public notice and in the Water Quality Certification do not include the double counting error. The Regional Water Board has determined that the real and true amount of land approximately 1,011 acres of wetlands, 108 acres of riparian areas, and 17 acres of streams are adequate to perform compensatory mitigation measures for the project.

Also see response RMPC-5.

Mitigation Plan Comment 6 (MPC-6) - *Long Term Management Plan*

We agree with the Regional Board's comments in their May 13, 2010 letter that the Long Range Management Plan portion of the MMP needs to contain specific vegetation, wildlife, water, and geomorphic objectives. Without specific objectives and goals, along with the current, potential and capable conditions for the mitigation lands it is impossible to determine if the entire watershed scale enhancement, preservation, restoration, or rehabilitation mitigation efforts that the Federal Mitigation Rule requires, are achieving success. Instead of proving the necessary specific science-based objectives and goals, Caltrans provides a list of Land Manager responsibilities that includes only a vague list of conceptual tasks. Without an agreement with the land manager the MMP is only a plan with no assurance of implementation.

Response to Mitigation Plan Comment 6 (RMPC-6)

Regional Water Board staff agrees that commitment by land managers to conduct activities consistent with the goals of the MMP is a key factor in successful mitigation. Condition 6 of the Water Quality Certification states that, Caltrans will be held ultimately responsible for the mitigation in both short term and long term. However, the Water Quality Certification is conditioned (Conditions 15 and 16) upon the land manager complying with all conditions within the water quality certification and shall submit confirmation to the Regional Water Board that they approve the final MMP, associated plans, PAR, long term endowment, and acceptance of all conditions. In addition, the mitigation requirements of the Water Quality Certification do not expire and remain fully enforceable.

Caltrans has revised the Long Term Management Plan (Chapter 11) for the Final MMP to include site assessments with monitoring components for hydrology, geomorphology, habitat, vegetation, water quality, and adjacent development and/or conflicting land use. In addition, Caltrans provides an outline for dynamic changes in the environment that may warrant adaptive management. For example, Appendix J of the Final MMP provides an inventory off sites that are likely to produce excessive sediment and a prioritization of restoration actions for these sites. Additionally, the long term management plan discussed the long term monitoring of these sites to assess their stability and potential sediment delivery to the Outlet Creek HSA. However, Caltrans recognizes that not all erosion may be negative to the ecosystem and anticipates natural succession as part of the long term restoration process. For example, meandering streams may cause bank erosion and may threaten Baker's Meadowfoam populations, but are ultimately a result of the stream finding is appropriate equilibrium with sediment supply and water discharges.

Condition 10 of the Water Quality Certification requires Caltrans to conduct baseline assessments for the purpose of developing the appropriate success criteria, grazing management plan, and long term management plan for mitigation actions. Caltrans will be conducting additional site-specific baseline surveys (water quality, geomorphology, fish habitat, and vegetation) in conjunction with the recommendations of the U.S. EPA, U.S. ACE, CDFG, and Regional Water Board. The purpose of the surveys is to further understand the potential and capable conditions for the mitigation lands. This baseline information will be used to determine the most appropriate goals and objectives for the mitigation lands, and will be utilized to show both enhancement of the mitigation lands, and potentially problematic areas within the mitigation lands, to ensure a successful long term management approach. This information will be critical for the long term managers to understand the potential and proper functioning conditions of the mitigation lands.

Mitigation Plan Comment 7 (MPC-7) - *Work Plan and Contingency Plan*

We agree with the Regional Water Board that the mitigation work plan must contain a contingency plan with clear direction for the land manager should the mitigation actions begin to fail. The MMP must be detailed in its explanation of Short Term Mitigation.

Response to Mitigation Plan Comment 7 (RMPC-7)

While Regional Water Board staff believes that it would be a good idea to have a contingency plan for the mitigation work plan, it is not necessary because the water quality certification requires compliance with the performance standards and success criteria set out in the MMP and water quality certification. If the mitigation work fails to meet the criteria, Caltrans and the land manager will be responsible for redoing the work until the mitigation is successful.

What is more critical than a contingency plan is ensuring that the land manager has ample funds to deal with problems should they arise. Funds to cover reasonably foreseeable set-backs to mitigation (e.g. plant mortality during the short-term establishment period, especially after irrigation is removed) as well as unforeseeable problems that would require remedial action have been budgeted into the endowment costs. These contingency funds will allow the land manager to respond promptly to get the mitigation back on track toward success. Conditions 15 and 16 of the Water Quality Certification ensure that the selected long term managers shall approve the MMP, property analysis record (PAR), and long term endowment prior to Caltrans initiating any ground, channel, or vegetation disturbing activities.

Mitigation Plan Comment 8 (MPC-8) – *Long Term Financial Assurances*

How can we be assured that the funds to maintain fish passage and keep the floodplain from expanding because of deposition of material will be adequate? Agreements for land manager duties are not in the MMP. Unless exact details of the transfer of lands, the amount of money provided to develop an agreement and when it would be available, the amount of money in the endowment and when that money would be available there is no way to judge whether the agreement will guarantee that the mitigation land management agency will have the resources to accomplish the goals.

Response to Mitigation Plan Comment 8 (RMPC-8)

A PAR was used to calculate the endowment amount that will cover the costs of the long-term management. To calculate the endowment amount, the PAR takes into account all of the day-to-day maintenance activities, all monitoring and reporting, and includes contingency funds. To further ensure that the amount of the endowment provided will be adequate to carry out the long-term management outlined in the MMP, Caltrans projected a low return rate of 2% to avoid under estimating the sum of the

principal to be invested. Based on the PAR calculation, the endowment sum is $15,287,504. The endowment will be transferred to CDFG and invested prior to the beginning of any management activities that it is required to fund. Also, Conditions 15 and 16 of the Water Quality Certification require that the selected long term managers shall approve the MMP, PAR, and long term endowment prior to Caltrans initiating any ground, channel, or vegetation disturbing activities.

Also see comment response RMPC-7.

Mitigation Plan Comment 9 (MPC-9) – *Establish Baseline*

The plan must establish a baseline for which preservation and enhancement can be measured. This baseline needs to be in all areas that are impacted and must include measurements taken during every season of the year. There must also need explanation of what the desired condition is.

Response to Mitigation Plan Comment 9 (RMPC-9)

Regional Water Board staff agrees with the comment and have requested additional baseline studies in a letter to Caltrans dated May 13, 2010. Within the Final MMP, Caltrans did provide reference to local watershed studies such as the *Outlet Creek Basin Assessment* (CDFG, Coastal Watershed Planning and Assessment Program, 2008) as well as several other published documents from various sources. Baseline information presented in Chapter 5 of the draft MMP was determined to be too general to fully describe the proper functioning conditions of the proposed mitigation lands. Condition 10 of the Water Quality Certification requires Caltrans to implement a robust Monitoring and Reporting Program (MRP) that will includes baseline assessments for the purpose of developing the proper success criteria for mitigation actions. Caltrans is currently continuing to gather more detailed and site specific baseline information that can be used to measure the level of enhancement achieved at the mitigation sites. Site specific baseline studies will be conducted prior to mitigation implementation for invasive plants, plant communities (species richness, diversity, and native plants), erosion potential sites, water quality, riparian shade, and benthic-macroinvertebrates (BMI).

Baseline data, the following constituents will be monitored:

- Flow rate
- pH
- Temperature
- Total Dissolved Solids (TDS)
- Turbidity
- Specific Conductance (SC)

- Total Settleable Solids (TSS)
- Total and Dissolved Metals
- Oil and grease.

Monitoring will also include visual observations of the appearance of the stream flow including color, floating or suspended matter or debris, presence of aquatic life, etc.

During baseline assessment, construction, success criteria monitoring, and post-construction monitoring data for pH, temperature, TDS, turbidity, and SC will be collected continuously and during select precipitation events. An additional parameter may be added to the constituent list if dust palliatives are used on haul roads (i.e. Methlylene Blue Activated Substances).

The following physical channel characteristics will be assessed:

- Cross sectional water depth
- Wetted channel width
- Bankfull width
- Substrate characteristics
- Canopy cover
- Gradient
- Sinuosity
- LWD.

The following biological assessments will be conducted for benthic macroinvertebrate sampling (bioassessment):

- Taxa richness
- Taxa composition
- Percent tolerant/intolerant organisms
- Functional feeding group analysis
- Abundance.

Chemical and physical habitat data will be used to assist in interpreting BMI community responses to construction (point-source) and mitigation (non-point source) activities. These data will be used to establish an index of biological integrity (IBI) that can be compared to the baseline condition (pre-project) as well as to regional index sites to monitor the success of channel restoration and enhancement efforts.

Mitigation Plan Comment 10 (MPC-10) – *TMDL*

We are very concerned about TMDL limitations on Outlet Creek and would like to see continuous monitoring for turbidity and temperature. We want to be sure there is adequate fish passage and that the fish's food sources are not adversely affected.

Response to Mitigation Plan Comment 10 (RMPC-10)

The Eel River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2004, the U.S. EPA established sediment and temperature total maximum daily loads (TMDLs) for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Roads are a responsible source of sediment in the watershed (directly, from surface erosion, and, indirectly, by triggering landslides). In addition, activities that impact the riparian zone and reduce riparian vegetation are identified as sources contributing to increased stream temperatures. A focus on measures to reduce sediment discharges to surface waters from roads in the watershed, and measures to avoid, minimize, and mitigate impacts on riparian zones is essential for achieving TMDLs.

Pursuant to Regional Water Board Resolution R1-2004-0087, *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region* (Sediment TMDL Implementation Policy), the Executive Officer is directed to "rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste."

To ensure compliance with sediment, temperature and other related water quality objectives within the Basin Plan, and consistent with the U.S. EPA-established TMDLs, adequate wetland and riparian protection and adequate measures and actions to avoid, minimize, and mitigate the sediment and temperature impacts associated with the proposed project will be incorporated as enforceable conditions of the water quality certification. In addition, Caltrans will be required to conduct surface water monitoring, sampling, and analysis in accordance with the conditions of the water quality certification. Additionally, storm water runoff monitoring, sampling, and analysis will be conducted as required by the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California, Department of Transportation (Caltrans) Properties, Facilities and Activities. The surface water data collected will be utilized to assess the adequacy of BMPs during construction as well as site specific mitigation measures proposed to minimize impacts to the environment, including sediment and temperature impacts.

The MRP required by Condition 10 of the Water Quality Certification requires that Caltrans used the data gathered from the baseline assessment, construction monitoring, and post-construction monitoring efforts to develop a TMDL compliance plan for the bypass alignment and the off-site mitigation lands.

To fully develop a watershed approach the mitigation must include a nexus to address the temperature and sediments impairments. The nexus relates how the proposed

mitigation will implement additional measures to reduce stream temperatures and excessive sediment inputs into the watershed. For sediment, Caltrans has prepared an assessment of all the erosion sites located within the off-site mitigation lands, which includes the inventory, prescription, and prioritization of restoration actions that will reduce erosion and sediment delivery within the watershed. In addition, the bypass structure has been designed to reduce erosion and sediment delivery to the maximum extent practicable (MEP). For temperature impairment, the most practical way to reduce stream temperatures is to provide riparian vegetation in all areas feasible within the project limits, including bypass alignment and off-site mitigation lands (maximum site potential shade). In addition, baseline surveys will be conducted to find all areas that benefit from riparian plantings to achieve maximum site potential shade, and percent effective shade (shade on water). Additionally, the current land management practices of stream alteration and cattle grazing have potentially negative side effects on water. Therefore, the proposed grazing management plan, which is geared towards the enhancement and protection of natural resources, will be implemented to improve the overall health of the watershed.

Also, see responses RMPC-3, RSWMC-1, RMPC-12.

Mitigation Plan Comment 11 (MPC-11) – *Lack of Detail*

Commenter supports the decision to reject the mitigation plan and wants the mitigation plan to include additional details prior to approval.

Response to Mitigation Plan Comment 11 (RMPC-11)

A considerable amount of detail was added to the MMP, dated June 2010. This detail includes additional success criteria, more detailed description of mitigation actions, additional requirements for baseline studies, water quality and bioassessment monitoring, a grazing plan, long-term management plan, endowment amount, and identification of the property owner, land manager, endowment holder, and CE holder/compliance monitor.

In addition, the Condition 10 of the Water Quality Certification requires the baseline studies be conducted to provide the adequate information regarding the existing conditions of the mitigation parcels. The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. It is necessary to establish baseline conditions of surface waters to verify the establishment and enhancement of wetlands, riparian areas, and waters of the U.S. and State within the mitigation lands.

Baseline data will be used to demonstrate that the bypass, both during and after construction, is in compliance with the Basin Plan, California's antidegradation policy in

State Water Board Resolution No. 68-16, and the U.S. EPA established sediment and TMDLs for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury).

The primary objectives of the MRP include, but are not limited to:

A. Assessing the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
B. Assessing the overall health and evaluating trends in receiving water quality;
C. Assessing the potential biological, chemical, physical impacts, both during and after construction, of the bypass alignment;
D. Determining and revising site specific performance standards and success criteria for the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
E. Evaluating the effectiveness of BMPs, mitigation measures, and avoidance measures;
F. Evaluating activities that results in or may result in violations of MRP and the Water Quality Certification that may warrant additional BMPs or stop work orders;
G. Identifying sources of pollutants;
H. Assessing compliance with water quality objectives and TMDLs;
I. Measuring and assessing the reductions or prevention in pollutant loads; and
J. Verifying and successful repair within the bypass alignment and enhancement of the mitigation lands.

The data collection and evaluation will be broken down into four separate phases for the bypass alignment and mitigation lands (with multiple tasks per phase). Data collection and evaluation may necessitate revisions to the MRP as trends and comparisons are established. This MRP requires the collection and evaluation of data to supplement the Final MMP for the short term and long term mitigation plans.

Also, see responses RMPC-1 through RMPC-10, and RMPC-12.

Mitigation Plan Comment 12 (MPC-12) – *Net Loss of Wetlands*

Wetland enhancement does not adequately mitigate the permanent net lost of wetlands.

Response to Mitigation Plan Comment 12 (RMPC-12)

During the project planning process Caltrans assessed over 6,000 acres of land within Little Lake Valley to identify potential mitigation for the impacts of the bypass project and contacted the property owners requesting that they consider selling land to Caltrans for mitigation. Caltrans received responses from willing sellers of 3,157 acres, of which only minor wetland creation was feasible. At the request of the Regional Water Board, Caltrans expanded their search to approximately 11,000 acres outside Little Lake

Valley. Caltrans received responses from land owners willing to sell 2,700 acres, with little opportunity for wetland creation. Caltrans was able to identify approximately 24 acres of wetland creation. Conditions 7 of the Water Quality Certification requires Caltrans to obtain control of all of the area necessary for the creation of the 24 acres of wetlands, as proposed in its mitigation and monitoring proposal.

Prior to the beginning of ground disturbing project construction activities, known populations of wetlands plant species to be affected by construction either will be salvaged for transportation to adjacent on-site locations or salvaged for relocation to off-site mitigation parcels, where the harvested material will be used to topdress created wetlands. Off-site mitigation actions for wetlands creation will require site preparation, including grading uplands and modifying local hydrology; seeding graded areas; planting wetlands species; and monitoring for successful wetland establishment.

After the creation of approximately 24 acres of wetlands, the project would still result in a loss of approximately 29 acres of wetlands. State of California Executive Order W-59-93 directs all state agencies to *"ensure no overall net loss and long term net gain in the quantity, quality and permanence of wetlands acreage and values in California…"* Executive Order W-59-93 also directs all state agencies "to encourage partnerships to make restoration, landowner incentive programs, and cooperative planning efforts the primary focus of wetland conservation." After several years of meetings and planning with Caltrans, the U.S. EPA, U.S. FWS, U.S. ACE, NMFS, CDFG, Mendocino County Resource Conservation District (MCRCD), Willits Environmental Center (WEC) and Regional Water Board collectively agreed to an ecologically designed watershed approach to mitigate for the permanent impact to wetlands wetlands. The watershed approach would involve providing a significant improvement to the ecological functions and values of wetlands off-site of the project, but still within the Little Lake Valley. (The project is planned in the west-central portion of the Little Lake Valley.) The resource agencies collectively agreed that the mitigation should be focused within Little Lake Valley, because it hosts a variety of unique ecological features, including the presence of several rare, threatened, and endangered species (e.g. anadromous fish and Baker's Meadowfoam).

This watershed approach mitigation strategy would combine habitat creation, restoration, enhancement, and preservation, which is consistent with the U.S. EPA and U.S. ACE new Compensatory Mitigation Rule released on April 10, 2008. Caltrans proposed enhancing approximately 1,011 acres of existing wetlands in combination with the 24 acres created, the 53 acres preserved for a total of approximately 1,088acres of wetlands secured in perpetuity. Wetland enhancement actions include: filling in man-made drainage ditches to increase the residence time of surface waters within the wetland area; implementing a grazing management plan to reduce the impacts from cattle; and removing invasive species to promote the health and natural recruitment of native wetland species. The mitigation site preservation and site protection instruments would be a combination of fee title purchase, conservation easement, or other deed

restriction. Condition 8 of the Water Quality Certification requires Caltrans to acquire by fee title, easement, or deed restriction and permanently preserve all the mitigation lands identified in the MMP, dated June 2010.

The Federal Mitigation Rule (33 CFR Part 332.3) discusses the considerations for the watershed mitigation approach which include water quality and watershed impairments. The Eel River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2004, the U.S. EPA established sediment and temperature TMDLs for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Therefore, to fully develop a watershed approach the mitigation must include a nexus to address the temperature and sediments impairments.

The nexus relates how the proposed mitigation will implement additional measures to reduce stream temperatures and excessive sediment inputs into the watershed. For sediment, Caltrans has prepared an assessment of all the erosion sites located within the off-site mitigation lands, which includes the inventory, prescription, and prioritization of restoration actions that will reduce erosion and sediment delivery within the watershed. In addition, the bypass structure has been designed reduce erosion and sediment delivery to the MEP. For temperature impairment, the most practical way to reduce stream temperatures is to provide riparian vegetation in all areas feasible within the project limits, including bypass alignment and off-site mitigation lands (maximum site potential shade). In addition, baseline surveys will be conducted to find all areas that benefit from riparian plantings to achieve maximum site potential shade, and percent effective shade (shade on water). Additionally, the current land management practices of stream alteration and cattle grazing have potentially negative side effects on water. Therefore, the proposed grazing management plan, which is geared towards the enhancement and protection of natural resources, will be implemented to improve the overall health of the watershed.

Legal Compliance Comment 1 (LCC-1)

There is no justification for Caltrans to avoid their legal responsibilities to meet the requirements of the Clean Water Act; Caltrans has requested permits from the resources agencies with any legal compliance based only on their promise to comply at a later date. We trust that the Regional Water Board will insist that those who propose to destroy public natural resources are required to comply with the law.

Response to Legal Compliance Comment 1 (RLCC-1) - *Clean Water Act Compliance*

It is beyond our regulatory purview to comment generally on Caltrans' legal compliance. However, with the issuance of the Water Quality Certification, we do find that the

project, including all required mitigation, will comply with state law as regards impacts to water quality.

The Water Quality Certification is conditional upon Caltrans meeting all of the requirements set forth therein, stating that no channel, ground or vegetative disturbing activities are allowed until Caltrans has: obtained all the required mitigation lands; provided specific work plan details; provided additional planting and creek restoration plans; geologic reports and reclamation plans for Oil Well Hill; the MMP approved by the land manager and recalculated the property assessment record and long term endowment; and perform an impact assessment of the contractors proposed haul road on the 100-floodplain to verify the road will have no additional impacts. In addition, the Water Quality Certification is conditional upon Caltrans revising the performance standards and success criteria, grazing plan, long term management plan, and developing a TMDL compliance plan. The Regional Water Board staff finds that the recent changes incorporated in the MMP, dated June 2010, the conditions within the Water Quality Certification, and MRP are sufficient to protect and enhance wetlands, streams, and the water quality within the bypass footprint as well as the mitigation lands.

Regulatory Evaluation Comment 1 (REC-1) - *Careful Not Rushed Regulatory Decision*

Public regulatory agencies must avoid expedited review and make careful decisions. They must not favor economic growth at the expense of poor planning, which could in turn lead to long term environmental and economic damage. The issues related to the mitigation plan must be resolved prior to issuing the permit.

Response to Regulatory Evaluation Comment 1 (REC-1)

Comment noted. See also response to RLCC-1, above.

Surface Water Monitoring Comment 1 (SWMC-1) – *Surface Water Monitoring*

There is no monitoring plan for the aquatic system as part of the MMP. Snorkel counts should be completed annually in streams and macro-invertebrate surveys should be established.

Response to Surface Water Monitoring Comment 1 (RSWMC-1)

The MMP, dated June 2010, included a Surface Water Monitoring and Reporting Program (SWMRP); however, Regional Water Board staff found the program to be incomplete in its development. Therefore, the Regional Water Board will contain a MRP that includes Bioassessement (benthic macroinvertebrate sampling), chemical, physical and biological monitoring components. Regional Water Board staff worked closely with

the U.S. EPA, U.S. ACE, and Caltrans to develop a comprehensive and complete MRP. The data collection and evaluation will be broken down into four separate phases for the bypass alignment and mitigation lands (with multiple tasks per phase).

Phase I - Baseline Evaluation and Reporting (Bypass Alignment)

Baseline Tasks

a) Collect baseline water quality data for stream reaches along the bypass alignment
b) Collect baseline bioassessment data for bypass alignment
c) Collect baseline wetland data for bypass alignment
d) Prepare and submit reports that evaluate data sets to assess the baseline biological, physical, and chemical properties
e) Incorporate data evaluation, revised success criteria, and revised management plans into MMP

Phase I - Baseline Evaluation and Reporting (Mitigation Lands)

Baseline Tasks

f) Collect baseline water quality data for mitigation lands
g) Collect baseline bioassessment data for mitigation lands
h) Collect baseline wetland data for off-site mitigation lands
i) Prepare and submit reports that evaluate data sets to assess the biological, physical, and chemical properties
j) Incorporate data evaluation, revised success criteria, and revised management plans into MMP

Phase II - Construction Compliance Monitoring and Reporting (Bypass Alignment)

Construction Compliance Tasks

a) Conduct water quality monitoring within the stream reaches along the bypass alignment
b) Submit monthly reports on construction compliance
c) Annual Report summary on construction compliance

Phase II - Construction Compliance Monitoring and Reporting (Mitigation Lands)

Construction Compliance Tasks

d) Conduct water quality monitoring within the mitigation lands
e) Annual qualitative status reports on progress of plantings, and mitigation construction compliance, and mitigation trends and progress

Phase III - Repair Success (Bypass Alignment) – Evaluating and Measuring Success

Repair Monitoring Tasks

a) Conduct water quality monitoring within the stream reaches along the bypass alignment to verify repair success

b) Collect bioassessment data within the stream reaches along the bypass alignment to verify repair success
c) Collect wetland data for bypass to verify repair success
d) Annual reporting on compliance and mitigation progress
e) Final Mitigation Report verifying success.

Phase III - Mitigation Land Enhancement (Mitigation Lands) – Evaluating and Measuring Success

Enhancement Monitoring Tasks

f) Conduct water quality monitoring within the mitigation lands to verify repair and enhancement success
g) Collect bioassessment data for the mitigation lands to verify repair and enhancement success
h) Collect wetland data for the mitigation lands to verify repair and enhancement success
i) Annual reporting on compliance and mitigation progress
j) Final Mitigation Report verifying success.

Phase IV - Long Term Total Maximum Daily Load (TMDL) compliance for the Bypass.

TMDL and Long Term Management Tasks

a) Once success has been achieved for the on-site repair areas, Caltrans shall develop TMDL Compliance Plan and Long Term Management Plan.

Phase IV - Long Term Total Maximum Daily Load (TMDL) compliance for the Mitigation Lands.

TMDL and Long Term Management Tasks

Baseline data will be collected for all mitigation sites prior to the start of soil disturbing activities. This data collection effort will include at a minimum the following information:

Water quality parameters (continuous monitoring):

- Flow (cfs)
- pH
- Temperature
- Dissolved oxygen
- Total dissolved solids
- Turbidity
- Specific conductance

Water quality parameters (precipitation event monitoring):

- Total settleable solids
- Total nitrogen

- Nitrate and nitrite
- Biochemical Oxygen Demand
- Total Kjeldahl Nitrogen (TKN)
- Total phosphorus
- Dissolved phosphorous
- Total and dissolved metals
- Hardness
- Fecal coliform
- Enterococcus
- Total organic carbon (except on-site mitigation sites).

Physical channel characteristics:

- Cross sectional water depth
- Wetted channel width
- Bankfull width
- Substrate characteristics
- Canopy cover
- Gradient
- Sinuosity
- LWD.

Benthic macroinvertebrate sampling (bioassessment):

- Taxa richness
- Taxa composition
- Percent tolerant/intolerant organisms
- Functional feeding group analysis
- Abundance.

Chemical and physical habitat data will be used to assist in interpreting benthic macroinvetebrate (BMI) community responses to construction (point-source) and mitigation (non-point source) activities. These data will be used to establish an index of biological integrity (IBI) that can be compared to the baseline condition (pre-project) as well as to regional index sites to monitor the success of channel restoration and enhancement efforts.

Although annual snorkel count surveys would provide useful information with respect to species occurrence and relative abundance in the project area over time, these surveys would not allow Caltrans or the resource agencies to determine whether any observed differences in annual monitoring results were the result of the project or environmental conditions unaffected by the project. For example, while observed differences in the abundance of young-of-the-year steelhead during annual snorkel counts could be the result of the project, they also may be a result of the timing, duration, or magnitude of

flows that occurred during the previous spawning season or a result of differences in the number of adult steelhead returning from the ocean to spawn the previous winter – the latter two being conditions that are clearly unrelated to the project. While monitors would clearly see differences in species abundances from year to year, monitors would not be able to determine what caused those differences.

As stated above, the subsequent phases of the MRP will require Caltrans to adequately verify the success of the mitigation with data collected during the baseline assessments. Once the resource agencies have determined that the mitigation actions are successful, Caltrans will be required to use the data gathered to develop and fine tune the appropriate long term management plans for the bypass alignment and off-site mitigation lands.

Surface Water Monitoring Comment 2 (SWMC-2) – *Construction Monitoring*

Given Caltrans past history of violations for discharges and lack of monitoring they should not be allowed to execute the monitoring themselves and should hire qualified third party.

Response to Surface Water Monitoring Comment 2 (RSWMC-2)

Condition 49 of the Water Quality Certification will require that Caltrans retain a qualified water quality monitor. The water quality monitor(s) shall be knowledgeable of and have experience with the Basin Plan, and surface water monitoring procedures, protocols, quality assurance, and quality control protocols. The water quality monitor(s) shall be responsible for monitoring project activities and/or channel- ground- or vegetation disturbing activities that result in or have the potential to result in a discharge to waters of the State. The water quality monitor(s) shall be approved by Regional Water Board staff shall make requests and provide recommendations to the Caltrans Resident Engineer, Construction Storm Water Coordinator, and Environmental Construction Liaison.

The water quality monitor shall be on-site daily while Project activities are occurring including all pile installation, dewatering, channel- vegetation- or ground-disturbing activities that may affect water quality to: (1) document compliance with water quality standards and this certification; (2) record the results of all required surface water monitoring; (3) evaluate the effectiveness of BMPs, mitigation measures, and avoidance measures; (4) alert key construction staff of precipitation forecasts; and (5) make stop work recommendations for activities that results in or may result in violations of this certification. The water quality monitor(s) shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections; recommendations; monitoring and sampling results; and discharges.

During construction of the Bypass water quality monitoring will be performed at 17 locations, at least, to assess the impacts and measure compliance with the Water Quality Certification.

Water quality parameters (continuous monitoring):

- Flow (cfs)
- pH
- Temperature
- Dissolved oxygen
- Total dissolved solids
- Turbidity
- Specific conductance

Water quality parameters (precipitation event monitoring):

- Total settleable solids
- Total and dissolved metals
- Hardness
- Oil and Grease

Storm Water Comment 1 (SWC-1) - *Toxics from Storm Water & Viaduct*

The bypass project will result in additional toxic substances entering the stream channels, especially from viaduct. How will the project mitigate for these toxic substances?

Response to Storm Water Comment 1 (RCWC-1)

The project will result in an increase of approximately 38 new acres of impervious surface in the Little Lake Valley. The total area of impervious surface that will exist within the project limits will be 49 acres (including new and existing impervious surface) when the project is completed. Caltrans will provide permanent post-construction storm water treatment for approximately 43 acres of impervious surface, which is more than the amount of impervious area being added. In accordance with the National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California, Department of Transportation Properties, Facilities, and Activities [Caltrans Storm Water Permit (Order No. 99 – 06 – DWQ)], the project has been designed to reduce discharges of storm water to the Maximum Extent Practicable (MEP). Storm water runoff and modifications to the local hydrograph will be controlled primarily through the use of low impact development (LID) best management practices (BMPs) such as bio-strips, bio-swales, and shallow vegetated detention basins that rely on infiltration and dispersion. In addition, where feasible, Caltrans will install and maintain traction sand traps within drain inlets along the roadway to reduce sediment delivery to Outlet Creek HSA.

For safety reasons, storm water drainage from the viaduct structure will be routed to deck drains and/or scupper drains. There is no treatment prior to these drainage appurtenances draining directly below. This represents a relatively small volume of storm water. Although they do not discharge directly to receiving waters, they will be discharging into the wetlands. Impacts to these wetlands are being addressed by the mitigation strategy set forth in the MMP for the creation, enhancement and preservation of wetlands.

During construction of the viaduct, temporary erosion control measures will be taken to prevent storm water discharges into the wetlands and surface waters, including the installation of Temporary Hydraulic Mulch (Bonded Fiber Matrix). Also, temporary BMPs will be used during the Construction phase. The BMPs are to be implemented in order to minimize the potential for sediments and pollutants from entering any water bodies. Caltrans will be required to implement a MRP as part of the project implementation. The MRP will establish baseline water quality conditions prior to the beginning of construction. The MRP will continue during construction and extend to one year after construction. Data will be analyzed to determine any potential impacts to water quality and proposed additional BMPs, if necessary, to improve water quality.

Although the project will create approximately 38 new acres of additional impervious surface, it will result in the treatment of storm water from approximately 43 acres. Approximately five acres will remain untreated. Because storm water from approximately eleven acres of impervious surface previously went untreated, and now this amount is lessened to five acres, this project arguably results in a net benefit to water quality because of the improved storm water treatment that it provides.

Project Impact Comments 1 (PIC-1) - *Haul Roads and Staging Areas, Water Sources / Disposal, "Wicking" and Compacting, and Concrete Batch Plant*

Water quality impacts have not been described or mitigated. These include those related to: Haul Roads and Staging Areas; Water Quality, Quantity, Source and Disposal, "Wicking" and compaction; Concrete Batch Plant; Oil Well Hill; and Upp Creek and Haehl Creek Culvert Repairs.

Response to Project Impact Comments 1 (RPIC-1)

Haul Roads and Staging Areas

The proposed haul roads and staging area locations have been identified in the Final EIS/EIR and in the application for water quality certification. For several years resource agency staffs (including Regional Water Board staff) have discussed the haul road scenarios with Caltrans. The impacts to waters of the State associated with the haul roads and staging areas will be mitigated on-site by restoring the areas subsequent to

the completion of the bypass. The restoration actions include revegetation and monitoring for successful plant establishment and surface hydrology.

During construction, the haul roads and staging areas will be stabilized to minimize temporary impacts. The contract between Caltrans and its contractor will contain provisions that specifically require that BMPs be implemented to address water quality impacts by requiring Caltrans to include all conditions of this order in the Plans and Specifications prepared for the Contractor. In addition, Caltrans shall require compliance with all conditions included in this Order in the bid contract for this project.

In addition, the Water Quality Certification requires Caltrans to:

- Submit a technical floodplain analysis that demonstrates the proposed haul road will not impact the 100-floodplain;
- Implement BMPs to the MEP with Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff in accordance with the Caltrans Storm Water Permit (Order No. 99 – 06 – DWQ), and the SWRCB NPDES General Permit and Waste Discharge Requirements for Discharges of Storm Water Runoff Associate with Construction and Land Disturbance Activities (Construction General Permit or CGP, Order No. 2009-0009 DWQ); and
- Comply with all applicable conditions within the water quality certification that requires surface water motoring and sampling and strict compliance with the water quality standards within the Basin Plan.

Additionally, Caltrans will implement a Surface Water Monitoring and Reporting Program that will collect water quality data prior to construction, during construction, and after construction. Collected water quality data will be analyzed to assess and improve BMP performance and re-vegetation efforts after construction.

Water Quantity

Caltrans will not be allowed to draft surface waters for this project. Water would have to come from other sources, including municipalities, groundwater or other private sources. Issues of water supply are outside of the Regional Water Board's jurisdiction.

Construction Dewatering and Water Disposal

Construction dewatering may be required at several locations within the project limits, including construction of Bent 24 at the confluence of Baechtel and Broaddus Creek. Currently, construction dewatering with discharges directly to receiving waters is not permitted. That would change if the Low Threat Discharge basin plan amendment approved by the Regional Water Board last year is approved by the State Board and the Office of Administrative Law. That amendment and the permit adopted to implement

that permit, Order No. R1-2009-0045, General NPDES Permit No CA0024901, Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region, would allow discharges of water from the dewatering of construction sites where sediment and naturally occurring parameters (e.g. naturally occurring metals or salts, temperature, pH, etc.) in area groundwater are the only pollutants of concern and do not exceed water quality objectives in the Basin Plan or California Toxics Rule (CTR). A groundwater characterization study is required as part of Permit coverage. Note the Permit states: "The discharge duration, flow rate, and volume must be disclosed and evaluated in relation to the receiving flow rate and characteristics in order for the Regional Water Board to determine if the discharge will have a low threat to water quality"

"Wicking" and Compacting

There will be wick drains placed under the abutments and roadway fills north of the viaduct to accelerate settlement. The wick drains will be placed to a depth of eighty feet. The areas where the wick drains are being placed and areas south of the viaduct where there will be no wick drains will have additional weight on the subsurface soils. That additional weight will not create a barrier to water movement. The subsurface water table will maintain equilibrium and remain stable on both sides of the embankment in all areas of the project.

On-Site Concrete Batch Plant

No discharges would be allowed from on-site concrete batch plants. Any batch plant would be required to comply with either the Caltrans Storm Water Permit or the State Water Board Construction General Permit. Either would require best management practices to ensure that storm water discharges from the site were not contaminated by pollutants from the batch plant. A concrete batch plant may also require compliance with additional regulatory requirements, such as a permit from the local Air Quality Management District.

Project Impact Comments 2 (PIC-2) - *Oil Well Hill*

Water quality impacts have not been described or mitigated related to the borrow site at Oil Well Hill.

Response to Project Impact Comments 2 (RPIC-2)

The location of the potential borrow site is within the impact footprint of the project, and thus incorporated in the impact and mitigation discussions in Sections 1.10.4, 2.3.5.,2.4.2., 3.7., 3.15., and 3.17. of the FEIS/EIR and permit applications. Oil Well Hill is within the Outlet Creek HSA and Caltrans has limited the potential material extraction areas to avoid dredging or filling waters of the State. A Geotechnical Design Report for

Oil Well Hill was done by a Licensed Professional Geologist dated, December 23, 2009, and a Seismic Investigation at Oil Well Hill by a Professional Certified Engineering Geologist was performed as well, dated April 20, 2007.

Caltrans has determined that additional permanent treatment BMPs could be implemented at this location during and after borrow source activities are complete. If Oil Well Hill is used as a borrow site the Contractor will be required to install temporary and permanent treatment BMPs to treat storm water runoff from the existing roadway adjacent to the borrow site. The contractor prepared SWPPP must designate construction BMPs to be implemented at the Oil Well Hill proposed borrow site. The Regional Water Board must approve the SWPPP prior to the beginning of project construction. In addition, storm water monitoring will be required by the Construction General Permit for both visible and non-visible pollutants.

Although Caltrans obtained an exemption from the Surface Mining and Reclamation Act, the Water Quality Certification will have conditions requiring Caltrans to submit a Reclamation Plan and conduct storm water and surface water monitoring to ensure the protection of Waters of the State and compliance with the Basin Plan.

Project Impact Comments 3 (PIC-3) – *Floodplain Analysis, Cumulative Impacts*

Caltrans must recalculate the cumulative impacts to the Federal Emergency Management Agency (FEMA) 100-year floodplain to include the final designs of the bypass footprint, haul roads, Willits Wastewater Treatment Plant (WWTP) and recent local development.

Response to Project Impact Comments 3 (RPIC-3)

The proposed project encroaches upon the 100-year floodplain. The design includes two elevated structures, which make up the floodway viaduct. The purpose of this design feature is to span the floodway. The Willits Bypass Floodplain Evaluation Report, dated September 2006, indicates that project will not increase the base flood elevation of the floodway, and does not constitute a significant floodplain encroachment as defined in 23 CFR 650.105(q).

Section 3.19.7 of the FEIS/FEIR considered cumulative impacts from the entire bypass project, planned improvements to the WWTP, and recent local developments. The FEIS/FEIR explained that WWTP improvements would include constructing ponds within the Little Lake Valley floodplain that would require mitigation to avoid impacts to the floodplain. The FEIS/FEIR further stated that although construction of the bypass within the floodplain would have minimal impacts related to additional impervious surface area or to beneficial floodplain values because of the relatively small areas involved, "*[t]he City of Willits and Caltrans are coordinating and sharing information to ensure that our hydraulic analyses use the same base conditions and that the projects*

do not cumulatively increase the floodplain elevations in the Little Lake Valley. If the WWWTP project precedes construction of the Willits Bypass, the baseline conditions for the bypass will be modified and the effects reassessed". This language essentially reflects the existing legal requirement, pursuant to the California Environmental Quality Act (CEQA), that supplemental or subsequent analysis may be required should changes to the proposed project or the surrounding circumstances, i.e., the baseline condition(s) of the floodplain substantially changes. (Pub. Resources Code, § 21166; Cal. Code Regs., tit. 14, § 15162).

Once a CEQA document has been fully approved by a lead agency, as has occurred here with Caltrans acting as lead agency, a responsible agency such as the Regional Board is bound by the document even where the responsible agency has misgivings about the adequacy of the document. (Discussion following Cal. Code Regs., tit. 14, § 15052.) A responsible agency may only step into the lead agency role and/or prepare a supplemental environmental document in the following limited circumstances: (1) subsequent changes to the project require substantial revisions to the environmental document due to new or increased environmental impacts; (2) there is new information that renders the environmental document inadequate; (3) changes to the surrounding circumstances require substantial revisions to the environmental document due to new or increased environmental impacts. (Cal. Code Regs, tit. 14, §§ 15052, 15162.) None of these circumstances currently exist with respect to this project and the associated FEIR/FEIS.

First, since the FEIR/FEIS was approved by the lead agency, the Regional Board has been presented with no information that changes have occurred to the project which requires substantial revisions to the environmental document. Second, the Regional Board has been presented with no new information that requires substantial revisions to the FEIR/FEIS. Third, although section 3.19.7 of the FEIR/FEIS contemplates the need for additional analyses should the environmental baseline of the floodplain change in the future, the floodplain has yet to be modified as part of the proposed WWTP and the baseline conditions of the floodplain remain the exactly same as they were when the FEIR/FEIS was adopted. A memorandum produced by Caltrans, dated August 2, 2010, confirms that the 2006 analysis is still adequate since baseline conditions have not changed. Accordingly, without an actual change to the baseline conditions, it would be premature to require additional analysis at this time and would violate CEQA's clear guidance on the preparation of a supplemental or subsequent environmental document by a responsible agency.

In addition, the Water Quality Certification for the WWTP includes compensatory mitigation that includes wetland creation through floodplain modifications. It has been concluded that the mitigation included as part of the WWTP will actually reduce the floodplain, which should further reduce impacts on floodplain from viaduct. Additionally, the August 2, 2010 memo from Caltrans confirms that the Little Lake Valley Floodplain Hydrology and Hydraulic Assessment for the City of Willits Wastewater Treatment Plant,

dated August, 2008, will reduce the base floodplain elevation and not results in a cumulative impact to the floodplain.

Project Impact Comments 4 (PIC-4) – *Wastewater Disposal*

Caltrans proposed to use drive through water washes on-site for invasive species control. How will wastewater from invasive species control be handled?

Response to Project Impact Comments 4 (RPIC-4)

The water quality certification will require that wastewater from invasive species control and equipment washing must be disposed of at an appropriately permitted facility or comply with the proper NPDES requirements for discharges. Wastewater from vehicle cleaning will not be allowed for on-site use for any purposes (e.g. dust control) unless Caltrans can demonstrate to the satisfaction of the Regional Water Board that the wastewater has been adequately treated for potential pollutants and invasive species.

Project Impact Comments 5 (PIC-5) – *Cumulative Impacts to the WWTP and Outlet Creek*

Will the bypass footprint and mitigation have cumulative impacts on the WWTP and will the viaduct interfere with the biological process of the City of Willits created wetlands? Will dewatering the confluence of Baechtel and Broaddus Creeks interfere with the City's ability to meet their effluent stream flow ratio? What are the cumulative impacts to Outlet Creek as the first rains wash create runoff from the viaduct and the WWTP is preparing to discharge?

Response to Project Impact Comments 5 (RPIC-5)

The proposed project encroaches upon the 100-year floodplain. The design includes two elevated structures, which make up the floodway viaduct. The purpose of this design feature is to span the floodway. A floodplain evaluation report concludes that project will not increase the base flood elevation of the floodway, and does not constitute a significant floodplain encroachment as defined in 23 CFR 650.105(q). CEQA requires that previously approved land use documents, including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact analysis.

Last year, the City of Willits also received permits from the U.S. ACE and the Regional Water Board for dredge and fill activities associated with construction of a wastewater treatment wetland at the WWTP which is within the floodplain. To mitigate potential impacts to the floodplain, the City of Willits created additional floodplain area by creating approximately 24 acres of seasonal wetlands. These seasonal wetlands will be created by removing and maintaining riparian berms, planting native wetland plant species and

allowing floodwaters to that were once confined to the channel by the riparian berms to overtop inundate the newly created seasonal wetland area. Therefore, this project will not have any impact on the floodplain. Accordingly, construction of the WWTP will not cumulatively contribute to any additional impacts associated with the project. See RPIC-3, above.

Furthermore, because this is a regulated floodplain, development in this area is restricted, and it is not likely that there would be any further development within this area that would cumulatively contribute to a significant effect on the floodplain. Based on the size of the cities wetland creation sites, the height of the viaduct and the seasonal aspect of the sun, it is not likely that the viaduct will affect the wetland creation sites enough to prevent the City of Willits from meeting compliance with their proposal. In addition, only a portion of the viaduct that is over the newly created wetlands will discharge directly to the wetlands below. The City's wetland creation proposal includes an adaptive management element, and should any problems arise with the proposed creation site they will be managed accordingly. Additionally, the Regional Water Board and U.S.ACE are the regulatory agencies that will verify compliance with the proposed mitigation and evaluate the mitigation reports to verify whether success is be achieved or is being hindered by the bypass or other constraints.

The Water Quality Certification for the bypass will require that the construction of the haul road must meet a set of guidelines that will involve addressing seasonal conditions and meeting all permit requirements. The Contractor will be required to submit a floodplain analysis that models the haul road in the existing floodplain demonstrating the haul road will not affect the 100-year floodplain.

Caltrans will only be allowed to work at the confluence of Baechtel and Broaddus Creeks between June 15th and October 15th. The Water Quality Certification will condition that Caltrans provide the City of Willits with their schedule for work in this area to avoid conflicts and potential cumulative impacts to the area during construction. In addition, the WWTP is prohibited by the basin plan to discharge to Outlet Creek from May 15th to September 30th, and typically does not discharge until later in the fall (depending on flows). Therefore, the construction of the viaduct should not interfere with the ability of the WWTP to meet the requirements under their individual NPDES permit.

Currently, the WWTP can discharge 3.0 million gallons per day (a per month average). The upgraded WWTP will be authorized to discharge up to 4.0 million gallons per day (a per month average) or 10% of the flow within Outlet Creek and a weekly average of 500 lbs/day of Total Suspended Solids. Storm water discharges associated with the viaduct represent a fraction of both the existing and future point source discharges to Outlet Creek. The estimated water quality volume discharged by the viaduct structure for a design storm of 2 years is 121,487 gallons. This represents 0.015% of discharges to Outlet Creek during the 2 year design storm. The estimated water quality volume

discharged by the viaduct structure for a design storm of 2 years is 121,487 gallons. This represents 0.015% of discharges to Outlet Creek during the 2 year design storm.

Also see response RSWC-1.

Project Impact Comments 6 (PIC-6) – *Excessive Fill*

Fill will be placed for the second phase of the bypass. Reasons provided for the need to place this fill are inadequate.

Response to Project Impact Comments 6 (RPIC-6)

The Willits Bypass project is a four-lane grade separated freeway project to improve interregional traffic operation, improve safety, and provide a level of service rating of C or better. The project is being phased due to financial constraints. The Final EIS/EIR and Project Report discuss the possibility of phasing the project due to funding. Section 2.2 of the FEIS/R states, "Upon environmental approval and appropriation of funding, Caltrans could design and construct all or part of the proposed project depending on funding availability. In an effort to balance potential funding limitations and the need for the project, the Willits bypass could be constructed in phases, whereby a functional interim facility would be constructed initially, and completion of the full facility would occur at a later date when additional funding is available."

Phase I consists of a four-lane interchange at the south end of the project conforming to an interim two-lane freeway before crossing East Hill Road. The interim two-lane freeway will utilize the southbound lanes of the ultimate four-lane freeway. The northern terminus of the project contains a two-lane grade separated interchange configured to allow the full four-lane ultimate interchange to use the existing roadway and structures.

Caltrans has evaluated the construction scenarios for completing Phase I of the project with the reduced amount of fill necessary for Phase I, as compared to the current proposal which includes the amount of fill necessary to construct Phase II. The evaluation indicated that additional project impacts to wetlands, streams, and riparian areas would result within and beyond the current bypasses alignment and possibly to the potential borrow site of Oil Well Hill. With the four-lane fill in place, design criteria for the Phase I structures will simplify Phase II design and minimize impacts in Phase II construction.

Project Impact Comments 7 (PIC-7) – *Temporary Impacts to Wetlands*

Wherever fill material is ultimately transported to the area below the viaduct which is sensitive wetland will be dewatered, significantly disturbed and severely compacted. Because there is no plan for returning the texture of the soil to pre-construction state, the construction areas identified under the viaduct will be permanently compacted. This

is a cumulative impact to the floodway and there will be impacts to water quality from the time restriction made to the floodplain.

Response to Project Impact Comments 7 (RPIC-7)

Caltrans is required by the U.S. ACE, Regional Water Board, and CDFG to successfully restore all temporary impacts to wetlands in accordance with the requirements presented in the final MMP. The restoration efforts will include re vegetation of native wetland species as well as monitoring of the surface hydrology and inundation period. In addition, the Water Quality Certification will require the success criteria for: wetland creation, restoration and enhancement success to include:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition]
- Nutrient removal/transformation
- Sediment/toxicant retention
- Absolute percent coverage of wetland plants
- Absolute percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- California Rapid Assessment Method (CRAM) score.

Therefore, the interaction of surface waters and ground water and soil saturation will be assessed. Restored or created wetlands will be monitored annually for at least 5 years. If success criteria are not met then additional actions or mitigation measures will be required by the resource agencies.

For cumulative impacts to the floodplain see responses RPIC-3 and RPIC-5.

Project Impact Comments 8 (PIC-8) – *Shortened Viaduct*

Before 2007 funding constraints were imposed the viaduct (Alternative J1T) was to begin about ¼ mile south of Center Valley Road. Doesn't the LEDPA need to be reexamined? A supplemental environmental document should be required for impacts to water quality and the floodplain.

Response to Project Impact Comments 8 (RPIC-8)

The structure commonly called the "viaduct" is a bridge spanning the floodway/floodplain. It was determined during the LEDPA analysis that the viaduct was not needed south of Center Valley Road and was eliminated before the Final EIS/EIR was finalized. The viaduct is as long as the longest viaduct discussed in the Draft

EIS/EIR alternatives. Accordingly, no supplemental environmental document pursuant to CEQA needs to be drafted.

For impacts to the floodplain, see responses RPIC-3 and RPIC-5.

Project Impact Comments 9 (PIC-9) – *Prevent Excessive Violations*

Add mechanism to SWPPP to prevent another project that fails to comply with water quality conditions and requirements, like the 150 Confusion Hill violations. All contractors should be required to attend water quality training class. Contractors should be notified that they will be held liable for violations. Biological/water quality monitor should have stop-work authority (Water Agency wants to meet monitor).

Response to Project Impact Comments 9 (RPIC-9)

The bypass project will at all times be required to feature adequate erosion and sediment control devices to prevent the degradation of water quality. Soils exposed by project operations will be treated to prevent sediment runoff and transport. Erosion control measures will include the proper installation and maintenance of BMPs pursuant to the Caltrans Storm Water Permit, and the Construction General Permit. In addition, Caltrans must comply with all applicable conditions within the Water Quality Certification that requires surface water motoring and sampling and strict compliance with the water quality standards within Basin Plan. Additional conditions of the certification will require that:

- Caltrans retain a water quality monitor dedicated to the project (also see response RSWMC-2);
- The Resident Engineer shall hold on-site water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on how to avoid violations and procedures for reporting violations. The meetings shall be held at least every other week, and particularly before forecasted storm events and when a new contractor or subcontractor arrives to begin work at the site.
- Caltrans shall conduct an environmental awareness and compliance training program for all contractors, sub-contractors and Caltrans staff working on the project. The training program shall present the environmental regulations and various permit conditions that Caltrans and the contractors shall comply with and the applicable measures established for the project to minimize impacts to water quality and avoid sensitive resources, habitats, and species.

Regional Water Board staff is pleased to know that the Mendocino County Water Agency would like to take a proactive and supportive role in this and other such projects. Cooperation with environmental compliance awareness, water quality

sampling, trainings, and construction inspections could all be coordinated between the State and County agencies throughout this and other projects within the region.

Project Impact Comments 10 (PIC-10) – Downsize the Bypass

Scaling down the bypass would accomplish the main goals without so much damage.

Response to Project Impact Comments 10 (PIC-10)

Alternatives resulting in less than a four-lane freeway have been considered during the development of the project. General Response 1.10 in Volume 2 of the Final EIS/EIR addresses the suggestion of a two-lane bypass. Transportation System Management (TSM) alternatives were also considered and discussed in Section 3.6.1 of the Draft EIS/EIR. TSM alternatives seek ways to use the existing facilities in lieu of an entirely new route. As elaborated upon in the environmental documents, the purpose and need would not be met with either the two lane or TSM alternatives. Numerous additional alternatives were considered during the scoping of the project. None of the alternatives reviewed would result in fewer environmental impacts than the identified LEDPA Modified J1T while still meeting the purpose and need.

Project Impact Comment 11 (PIC-11) – *Construction Impacts*

Construction activities and heavy equipment will threaten wetlands and salmonid streams.

Response to Project Impact Comment 11 (RPIC-11)

During construction, water quality effects will be minimized through provisions in the construction contract. Contractors will be required to prepare and implement a program to effectively control water pollution during the construction of the bypass project, in compliance with Caltrans Standard Specifications Section 7-1.01G—Water Pollution and Contract Special Provisions. This program will consist of the development of a SWPPP, which requires that the bypass project meet standards and objectives to minimize water quality impacts during construction. The SWPPP will be submitted to Regional Water Board before any construction activities begin. The SWPPP will include appropriate Caltrans construction BMPs to reduce the potential for sediment and contaminants from entering creeks. Potential BMPs for inclusion in the project's SWPPP are listed below with detailed descriptions available online at http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm (additional BMPs could be implemented as necessary to minimize potential effects on water quality).

- preservation of existing vegetation
- hydroseeding
- silt fencing

- gravelbag barriers
- stabilized construction entrance/exit
- stabilized construction roadway
- dewatering operations
- paving and grinding operations
- temporary stream crossings
- clear water diversion
- material delivery and storage
- stockpile management
- spill prevention and control
- solid waste management
- hazardous waste management
- concrete waste management
- sanitary/septic waste management
- liquid waste management.

The contractor will be required to implement appropriate BMPs to prevent the discharge of equipment fluids to the stream channel. The minimum requirements will include: storing hazardous materials outside of the stream banks; checking equipment for leaks and preventing the use of equipment with leaks; pressure washing equipment to remove fluid residue on any of its surfaces prior to its entering the live channel (if equipment is needed in the channel to establish a flow diversion); maintaining spill response material and suitably trained personnel at the project site; responding immediately to any fluid releases and applying containment booms and absorbent materials as appropriate; and notifying the Regional Water Board of releases and discharges. For minor accidental releases of equipment fluid to the dewatered channel, the contractor will be required to remove and properly dispose of contaminated material.

In addition, Caltrans shall submit the SWPPP in an electronic format using the Storm Water Multi-Application Reporting and Tracking System (SMARTS). http://smarts.waterboards.ca.gov/. The SWPPP, updates to the SWPPP, and monitoring reports regarding the regulation or storm water will be available to the public via this website. In addition, the public may view inspections reports and facility information related to the Section 401 Water Quality Certification at the California Intergraded Water Quality System (CWIQS) at http://www.waterboards.ca.gov/water_issues/programs/ciwqs/

All disturbed soil areas, including non structural slopes, will be stabilized with revegetation and erosion control measures. Disturbed slopes will be re-vegetated in accordance with plans developed by the Caltrans District Landscape Architect and the Revegetation Specialist or otherwise stabilized. Permanently impacted areas such as cut and fill slopes adjacent to the roadway along interchange ramps, as well as median between the inside roadway shoulders will be re-vegetated with native plants

appropriate to Little Lake Valley. Steeper embankment slopes located at structures approaches will be protected with RECP (Netting) blanketing materials and all final slopes will be stabilized and re-vegetated with local topsoil and native grass seed which is included in the Erosion Control (Bonded Fiber Matrix) application. In addition, finished slopes and ditches constructed greater than 1:3 (V:H) will be stabilized with Rolled Erosion Control Product (Netting). Upon completion of construction of the Floodway Viaduct structure, the entire disturbed area will be regarded to pre-construction conditions and re-vegetated with Erosion Control (Bonded Fiber Matrix). Prior to the application of Erosion Control (Bonded Fiber Matrix), Local Topsoil will be collected/harvested and stockpiled prior to construction and placed back on all areas to receive permanent erosion control measures such as Erosion Control (Bonded Fiber matrix) in the re-vegetation effort, once the project has been completed. Bio-swales will be constructed and re-vegetated as part of Treatment BMPs at drainage outlet areas prior to run-off off site of the project. Turf Reinforcement Mat (TRM) along with Erosion Control (Bonded Fiber Matrix) will be utilized to line the inlet channel at Center Valley Rd.

Also, see responses RSWMC-1 and RSWMC-2.

Project Impact Comment 12 (PIC-12) – Permanent Fill Area

All re-vegetation must have an 80% success rate. Efforts must continue until success is achieved with no time limitation.

Response to Project Impact Comment 12 (RPIC-12)

The comment was made with respect to the permanent fill area. For areas along the bypass that need to be re/vegetated with erosion control to stabilize fill slopes Caltrans typically requires 70 percent coverage of applied erosion control products. Condition 56 of the Water Quality Certification requires Caltrans to provide yearly slope evaluation and erosion control monitoring reports for up to 10 years subsequent to the completion of the bypass project. Caltrans shall provide at least 80 percent coverage of established erosion control of all exposed areas along the bypass. If the new bypass project has slope failures, excessive erosion, or causes other water quality degradation corrective actions will be required to mitigate the impacts. To clarify, established erosion control is vegetation growth, not applied erosion control product.

Temporary impact areas will be repaired once construction of the Willits Bypass is complete. The yearly performance standards and final success criteria are set up to acknowledge that plant mortality is a normal and expected occurrence in any re-planting effort. The final success criteria for riparian areas are expected to be met by year 10, however, if the criteria are not met by year 10 this does not absolve Caltrans of the obligation to meet the criteria. If the yearly performance standards do not show a trend toward meeting the final success criteria in year 10, adaptive management actions will

have already been implemented to get the mitigation back on track to meet success criteria. Monitoring and adaptive management will continue until final success criteria are met regardless of the year. The same approach applies to wetland areas.

General Opposition Comments 1 (GOC-1) – *No to the Project*

Commenter's who oppose the bypass in general.

Response to General Opposition Comments 1 (RGOC-1)

Comments noted. Areas commented on that are outside of the Regional Water Board's regulatory jurisdiction include: general opposition; noise; impacts to bees and local pollinators; sink holes; traffic; farmland; and former Highway 101 relinquishment.

Requests for an Additional Public Comment Period 1 (PCPC-1) – *Public Comment Period and Meeting*

Commenter's request that the Regional Water Board open an additional public comment after the application is deemed complete and hold a public meeting. Several commenters' raised concerns that the mitigation approach was not fully disclosed to the public.

Response to Requests for an Additional Public Comment Period 1 (PCPC-1)

As required by the California Code of Regulations title 23, chapter 28, section 3858 the Executive Officer is required to provide a public notice for at least 21 days, unless the Federal Agency or Application has provided an adequate notice period. On March 16, 2010, the U.S. ACE provided a 30 day public comment period, which adequately covers the responsibilities of the Regional Water Board. However, on April 29, 2010, the Regional Water Board issued a public notice for the project as well. In addition, based on a public request the Regional Water Board extended the comment period by six days, and has considered all comments received up to June 16, 2010.

Economic Comments 1 (EC-1)

In California's current financial crisis is this project the best use of limited funds? This project should be redesigned to something with a more practical price tag.

Response to Economic Comments 1 (REC-1)

Comment noted. This issue is outside of the Regional Water Board regulatory jurisdiction.

Project Planning Comments 1 (PPC-1) – Antiquated Design

Decade old plans and ideas are not being looked at from a 2010 perspective. Peak oil, climate change and economic cataclysm were not in the picture when these plans were originally made.

Response to Project Planning Comments 1 (RPPC-1)

Comment noted.

Project Planning Comments 2 (PPC-2) – Tight Diamond Interchanges

Caltrans should be required to actually design "tight diamond" interchanges as they promised in the Final EIS/EIR.

Response to Project Planning Comments 2 (RPPC-2)

The DEIS/EIR dated May 2002 states in section 5.6.4 Mitigation Measures, subsection FP-4 the project will consist of tight diamond interchanges rather than the larger spread diamond interchanges. The current vernacular for the two types of diamond interchanges are now compact diamond and spread diamond interchanges. The compact diamond interchange replaces the tight diamond. The current Modified J1T Alignment uses compact diamond interchanges, the same intersection design as the tight diamond interchanges.

Public Access Comment (PAC-1) – Unannounced Public Inspections

Please require and allow public access for periodic unannounced site inspections.

Response to Public Access Comment (PAC-2)

For safety and liability reasons only authorized personnel will be allowed to enter the construction sites. Authorized resource agency personnel may enter the project site at any time to verify compliance with permit conditions and regulations. Regional Water Board staff frequently performs unannounced inspections of sites and facilities to verify compliance. In accordance with CalOSHA regulations everyone on the project site must be wearing the required personal protection equipment and it is State policy that these inspectors are maintain yearly HAZWOPER (health and safety) training. For the safety of everyone, all visitors must contact the Resident Engineer's office to make arrangements to read the Code of Safe Practices and receive a briefing on the current operations before entering the project. Construction zones can be very dangerous if one does not know how to properly maneuver around the sites and heavy equipment.

Potential Wetland Enhancement 1 (PEC-1)

Commenter suggested specific areas in the watershed that have potential wetland enhancement opportunities.

Response to Potential Wetland Enhancement 1 (PEC-1)

Comment noted. These areas may provide potential wetland mitigation opportunities and would require further evaluation. These locations may provide useful mitigation for future projects.

Also see response RMPC-11.

Traffic Volume Comments 1 (TVC-1) – *Traffic and LEDPA*

Decisions on the LEDPA utilized numbers from the mid 90's. Traffic projections have not borne out. Caltrans website shows that traffic numbers have decreased since 1992. The decision to use Level C as the criteria for accepting alternatives is unnecessary and precludes any two lane options or in town at grade solutions. A two-lane alternative would remove the slow-down currently experienced by through traffic in Willits. The traffic problem is not as bad as Caltrans has described and this project does not meet LEDPA.

Response to Traffic Volume Comments 1 (TVC-1)

Comment noted. The Regional Water Board is not a signatory agency to LEDPA. Modified Alternative J1T was determined by Caltrans, FHWA, U.S. EPA and the U.S. ACE to be the LEDPA/Preferred Alternative because it would have the least overall impact to the natural and community resources, while still meeting the purpose and need for the project. A Record of Decision was issued for the proposed project based upon the purpose and need on December 18, 2009 by the Federal Highway Administration.

Traffic Volume Comments 2 (TVC-2) – *Trucks in Town*

There have never been any assurances that truck traffic associated with construction of the bypass will not go through town.

Response to Traffic Volume Comments 2 (TVC-2)

Comment noted. This issue is outside of the Regional Water Board regulatory jurisdiction.

Contractor Comments 1 (CC-1) – *Bar Problem Contractors*

Contractors with poor track records of environmental compliance should be barred from the project.

Response Contractor Comments 1 (CC-1)

Comment noted. As the permit applicant and holder Caltrans has the ultimate responsibility on projects and is subject to liability for actions taken by its contractors.

Semaphore Grass Comment 1 (SGC-1)

The commenter discussed the impacts to North Coast Semaphore Grass (NCSG) related to the project and the lack of appropriate mitigation pursuant to the California Endangered Species Act (CESA).

Response to Semaphore Grass Comment 1 (RSGC-1)

A Supplemental Environmental Impact Report was prepared pursuant to the California Environmental Quality Act. The draft report was signed on November 15, 2009. Comments were received during the circulation period, which ended January 19, 2010. The Final Supplemental EIR was completed in May 2010, with potential impacts to NCSG determined to be less than significant after mitigation. The mitigation proposal will protect and manage over 1,900 acres of habitat and include preservation of North Coast semaphore grass.

Measures will be taken to minimize and fully mitigate project impacts. As part of avoidance and minimization measures, North Coast semaphore grass seed and rhizomes will be salvaged from the impact area prior to project construction and transplanted within the bypass alignment to an unaffected area. In addition, Caltrans is coordinating with CDFG and USFWS on a 2-year study to characterize hydrology (i.e., groundwater), soils (i.e., moisture and temperature), and cultural (i.e., land use) conditions at Arkelian, Frost, Goss, Lusher, and MGC Plasma North offsite mitigation parcels and the Huffman impact parcel for use in determining the potential to actively expand these occurrences. Data collected relating to the soil dry down curve at the occurrence sites will be of particular interest. Based on qualitative observations made during March 2010 abundance surveys, expansion at the occurrences seem possible as there appears to be unoccupied habitat available at the boundaries of the occurrences that could accommodate expansion. Land management practices, such as low intensity livestock grazing and limited mowing, also may allow expansion of North Coast semaphore grass.

As part of mitigation efforts, five existing North Coast semaphore grass populations in Little Lake Valley that occur at the Arkelian, Frost, Goss, Lusher, and MGC Plasma North offsite mitigation parcels will be placed in preserves as part of project mitigation. A total of 5.094 acres of occupied habitat has been identified at these preserves. The soil and hydrologic conditions favored by north coast semaphore grass are currently being evaluated to better understand the groundwater, soil moisture, soil temperature, soil profile, and soil density conditions under which NCSG grows. The evaluation is also intended to provide an understanding of the characteristics of areas adjacent to NCSG populations that may be used for implementing minimization measures (e.g., transplantation and seeding) for NCSG impacts at and for determining expansion potential at existing NCSG populations that will be preserved. Caltrans has developed a work plan in coordination with the CDFG and U.S. USFWS)to provide supplemental data for NCSG. During March 11—26, 2010, NCSG populations were identified, mapped, stratified (into stands), and surveyed for abundance. Simultaneously, 69 shallow soil pits were excavated within and adjacent to NCSG stands at five separate occurrences in Little Lake Valley as part of general habitat characterization efforts. Soil, hydrologic, and other site characteristics were documented at each of the pit sites. These data have been used to develop monitoring methods to collect more detailed soils and hydrology data. In addition to the soil and hydrologic data collected during general habitat characterization surveys, data were also collected on NCSG rooting depth. Knowledge of the root zone will help define the depth at which soil moisture and soil temperature monitoring sensors will be installed. The results of the detailed soil and hydrologic monitoring will be presented in annual monitoring reports to be submitted to the resource agencies for review in September 2010 and September 2011.

General Support Comments 1 (GSC-1) – *In Support of Conditional Permit*

Commenter's who support the Regional Water Board issuing a conditional permit for the bypass. Commenter's also support the ecologically designed mitigation approach and restoration efforts for the benefit of salmonids. Commenter's who urge the Regional Water Board to give this project as much attention as possible in order to get it approved.

Response to General Support Comments 1 (RGSC-1)

Comment noted. Collectively the State and Federal resource agencies have spent an incalculable amount of staff time on the Caltrans-proposed Highway 101 Willits Bypass Project over past decades. The purpose of the resource agencies' involvement in the process is to aid Caltrans in appropriately avoiding, minimizing and mitigating significant impacts to the environment associated with the proposed Project. In addition, over the past several months Regional Water Board staff (Caltrans liaison) has been dedicated full time to this project to expedite meetings with State and Federal agencies, conduct document reviews, and provide additional planning efforts to assist Caltrans in meeting

their goal. Subsequent to the incomplete letters issued by the U.S.EPA and U.S. ACE, the Regional Water Board also issued an incomplete letter reiterating the issues identified by the Federal agencies. However, Regional Water Board staff also provided additional suggestions on how to improve the project what type of information would be useful for the permitting agencies to receive in order to approve the project.

Commenter Key

Comment Type	Comment Catergory
Contractor Comments	CC-1
Contractor Comments	CC-1
Economic Comments	EC-1
Economic Comments	EC-1
Economic Comments	EC-1
Economic Comments	EC-1
Economic Comments	EC-1
Economic Comments	EC-1
Economic Comments	EC-1
No to the Project	GOC-1
No to the Project	GOC-1
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Comment Type	Comment Catergory
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In Support of the Project	GSC-1
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Comment Type	Comment Catergory
In Support of the Project	GSC-1
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Compiance with Clean Water Act	LCC-1
Compiance with Clean Water Act	LCC-1
Mtigation vs. Adjacent Land Use	MPC-1
Mtigation vs. Adjacent Land Use	MPC-1
Mtigation vs. Adjacent Land Use	MPC-1
Mtigation vs. Adjacent Land Use	MPC-1
Mtigation vs. Adjacent Land Use	MPC-1
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Comment Type	Comment Catergory
Mtigation vs. Adjacent Land Use	MPC-1
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Mtigation vs. Adjacent Land Use	MPC-1
TMDL	MPC-10
TMDL	MPC-10
TMDL	MPC-10
TMDL	MPC-10
TMDL	MPC-10
TMDL	MPC-10
Lack of Detail	MPC-11
Lack of Detail	MPC-11
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Lack of Detail	MPC-11
Net Loss of Wetland	MPC-12
Net Loss of Wetland	MPC-12

Comment Type	Comment Catergory
Net Loss of Wetland	MPC-12
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Net Loss of Wetland	MPC-12
Succession & Land Management	MPC-2
Succession & Land Management	MPC-2
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Comment Type	Comment Catergory
Succession & Land Management	MPC-2
Succession & Land Management	MPC-2
Succession & Land Management	MPC-2
Fish Mitigation and Habitat Enhancement	MPC-3
Fish Mitigation and Habitat Enhancement	MPC-3
Fish Mitigation and Habitat Enhancement	MPC-3
Fish Mitigation and Habitat Enhancement	MPC-3
Fish Mitigation and Habitat Enhancement	MPC-3
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Comment Type	Comment Catergory
Fish Mitigation and Habitat Enhancement	MPC-3
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Fish Mitigation and Habitat Enhancement	MPC-3
Mitigation Lands Purchase	MPC-4
Mitigation Lands Purchase	MPC-4
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Comment Type	Comment Catergory
Mtigiation Credits & Preservation	MPC-5
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Long Term Management Plan	MPC-6
Long Term Management Plan	MPC-6
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Long Term Management Plan	MPC-6
Long Term Management Plan	MPC-6
Long Term Management Plan	MPC-6
Long Term Management Plan	MPC-6
Long Term Management Plan	MPC-6
Work Plan, Contigency Plan	MPC-7
Work Plan, Contigency Plan	MPC-7
Work Plan, Contigency Plan	MPC-7

Comment Type	Comment Catergory
Long Term Financial Assurances	MPC-8
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Comment Type	Comment Catergory
Toxics from Storm Water & Viaduct	SWC-1
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Comment Type	Comment Catergory
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Attachment 2

California Environmental Quality Act Findings for Potentially Significant Impacts to Water Quality related to California Department of Transportation Highway 101, Willits Bypass Project WDID No. 1B10019WNME

As a Responsible Agency, the Regional Water Quality Control Board, North Coast Region (Regional Water Board), complies with the California Environmental Quality Act (CEQA) by considering the Environmental Impact Report (EIR) prepared by the Lead Agency (California Department of Transportation) and making its own findings regarding significant impacts within its regulatory purview and jurisdiction. (Cal. Code Regs, tit. 14, §§15091, 15096.) These findings are set forth below.

The Final Environmental Impacts Statement / Environmental Impact Report for the Willits Bypass project (FEIS/EIR - State Clearing House No. 1990030006), certified by the California Department of Transportation (Caltrans) on October 25, 2006 and Supplemental Environmental Impact Report certified by Caltrans on May 19, 2010 (SEIR State Clearing House No. 1990030006), identifies the following potentially significant impacts to water quality from the project:

1. Increases in Water Temperature (FEIS/EIR, § 3.5.1)
2. Impacts to Sensitive Plant Communities and Habitats (FEIS/EIR, § 3.7.1, SEIR, § 4.1.)
3. Direct and Indirect Impacts to Special-Status Plants (FEIS/EIR, §§ 3.7.3, 3.17.2)
4. Direct and Indirect Impacts to Special-Status Fish (FEIS/EIR, §§ 3.7.7, 3.17.1)
5. Direct and Indirect Impacts to Wetlands and Waters of the U.S. (FEIS/EIR, §§ 3.7.4, 3.17.3)
6. Impacts to Special Status Wildlife (FEIS/EIR, § 3.7.5)

Based on its own independent review of the FEIS/EIR and SEIR, the Regional Water Board finds that with the implementation of the mitigation measures identified in the FEIS/EIR and SEIR and conditions of the Water Quality Certification, all potentially significant impacts to water quality will be reduced to levels which are less than significant. This conclusion is supported by the findings below.

Potentially Significant Impact to Water Quality – Increases in Stream Temperature (FEIS/EIR, § 3.5.1):

Impact Description:

The proposed project would span the following surface waters: Haehl Creek, Baechtel Creek, Broaddus Creek, Mill Creek, and Upp Creek, all of which are tributaries to Outlet Creek. Construction of the bypass at these stream crossings would result in the removal of riparian habitat in order to accommodate the construction of bridges, culverts, and the viaduct structure. This would result in 10.12 acres of temporary impacts (6,693 linear feet) and 10.88 acres of permanent impacts (8,535 linear feet) of

riparian areas.[1] The removal of this vegetation and loss of canopy cover could affect water quality by elevating stream water temperatures at these locations. The FEIS/EIR has identified this as a potentially significant impact.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have been required in, or incorporated into, the project that would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board finds that mitigation measures and conditions listed below are feasible to offset the impact to stream temperature and are, therefore, incorporated as conditions of the Water Quality Certification and associated Monitoring and Reporting Program (MRP).

Facts that Support the Finding:

FEIS/FEIR Mitigation Measures:

WQ-3: Revegetation: Where vegetation is removed or severely trimmed back, Caltrans will plant replacement vegetation for shading of creeks to reduce temperature related impacts to water quality. Local native plant species would be used for the revegetation of impacted riparian areas along salmonid streams, within the project limits as well as off-site mitigation areas. Mitigation would be in-kind and plant propagules would be collected in Little Lake Valley. Planting methods would include the installation of stem (pole) cuttings from plants such as willows, cottonwood, thimbleberry, coyote bush, or other species capable of easy rooting from cuttings. Pole cuttings would also be used to revegetate areas where Rock Slope Protection (RSP) is required on the stream banks. In mitigation areas where some riparian vegetation is already present, additional vegetation would be planted. Revegetation of unvegetated stream banks would be considered creation.

BIO-9: Riparian Woodland: Caltrans/Federal Highway Administration (FHWA) will mitigate for impacts to riparian forest habitat through creation and restoration or

[1] Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands, and are considered "waters of the State." Protection of riparian areas adjacent to streams, lakes, and estuarine-marine shorelines is essential to the protection of the beneficial uses of the waterbodies. As collectively agreed to by the resource agencies with jurisdiction over this project, riparian areas are: 1) Category I Riparian Corridors, which include areas of salmonid streams and adjacent riparian areas extending 100 feet from each bank laterally from the Ordinary High Water Mark; 2) Category II Riparian Corridors, which include tributaries of Category I Riparian Corridors that are within 1,000 feet of the confluence with a Category I Stream, and extending 50 feet from the OHWM on each bank; and 3) Category III Riparian Corridors, which include tributaries of Category I Riparian Corridors that are more than 1,000 feet upstream of the confluence with the Category I Stream, extending 25 feet from the OHWM on each bank.

enhancement (including expansion) of existing degraded riparian habitat at a ratio agreed upon in consultation with California Department of Fish and Game (CDFG), United States Fish and Wildlife Services (USFWS), National Marine Fisheries Service (NMFS), and United States Environmental Protection Agency (USEPA). Caltrans/FHWA will protect riparian forest mitigation areas in perpetuity through conservation easements, deed restrictions or other equivalent measures. The primary goal of the Mitigation and Monitoring Plan for riparian communities will be to ensure that no permanent loss of habitat values occurs as a result of the project and that the temporal loss of habitat is adequately mitigated.

Additional Conditions:

Revegetation: Where removal of vegetation is required, protection of riparian woodland, and riparian creation and enhancement are proposed to offset potential impacts related to loss of canopy and elevated stream temperature. Where riparian woodland vegetation must be removed, mitigation for all affected riparian woodlands would be implemented through creation/restoration, enhancement, and preservation within Little Lake Valley as required by the Monitoring and Reporting Program (MRP) and MMP. Section 3.0. of the MRP requires the conversion of baseline information into site-specific performance standards that will measure success and ensure that long-term impacts resulting from the loss of canopy and the corresponding potential increases in stream water temperature are reduced to a less than significant level or avoided.

Protection of Riparian Woodland: Potential impacts to riparian woodlands would first be minimized. Minimization measures during construction shall include: removing the minimum amount of vegetation necessary; installing environmental sensitive area (ESA) fencing and enforcing protection of riparian vegetation located within established protected areas; implementation of appropriate Best Management Practices (BMPs); and pre-construction training sessions to inform contractors and construction workers of the status of sensitive habitats and special-status species and the requirements for avoidance of protected areas.

Riparian Creation and Enhancement: In addition to minimizing impacts and mitigating all removed riparian vegetation, the project will also revegetate unvegetated stream banks (which would be considered creation) and provide additional vegetation along some sparsely vegetated areas (which would be considered enhancement). Approximately 1,700 linear feet of riparian plantings will be placed along the east bank of Baechtel Creek between where the viaduct will cross Baechtel Creek and where East Commercial Street presently crosses the creek, and along approximately 1,400 linear feet of the north bank of Mill Creek before Mill Creek passes under the Western Pacific railroad tracks, which will further improve surface water temperatures within the watershed. Approximately, six miles (measured along both sides of the stream banks) of riparian habitat will be created or enhanced along Category I, II, and III streams within the offsite mitigation parcels. Long stream reaches that would benefit from riparian

plantings are present along both Davis and Outlet Creeks, and will be required as a condition of the Water Quality Certification and MRP.

Monitoring and Reporting Program: As stated in Section 1.0. of the MRP, Caltrans is required to conduct bioassessment (benthic macroinvertebrate sampling) as well as chemical, physical, and biological monitoring components. Chemical monitoring includes parameters such as dissolved oxygen, temperature, turbidity, total dissolved solids, oil and grease, and several other constituents. Physical monitoring includes hydrology, geomorphic conditions (i.e., cross sectional water depth, wetted channel width, bankfull width, substrate characteristics, canopy cover, gradient, sinuosity, large woody debris) and other parameters. Biological monitoring includes wetland plant coverage, invasive species coverage, riparian canopy coverage, benthic macro-invertebrates surveys, as well as other parameters. Regional Water Board staff worked closely with the USEPA, United States Army Corps of Engineers (USACE), and Caltrans to develop the MRP and to ensure that impacts to stream temperatures are fully mitigated.

Section 3.0. of the MRP details the schedule (including the frequency of monitoring), the locations, and the evaluation of data to adequate develop the short term work plans, grazing management plan, and mitigation success criteria. The requirements for baseline assessments, monitoring during construction, procedures for enhancement verification, and long term monitoring requirements as also detailed in Section 3.0.

Section 4.0. of the MRP requires that Caltrans monitor impacts to stream temperatures associated with the construction of the bypass and Section 5.0. requires Caltrans to measure the success of the mitigation measures (revegetation) and ensure the project does not result in a significant increase in stream temperatures in the long term. Additionally, the Water Quality Certification and MRP require Caltrans to plant riparian vegetation in all areas within the bypass alignment and mitigation lands to provide the maximum site potential shade to streams within the project area. Section 3.0 of the MRP also require Caltrans to include additional and robust success criteria within the Mitigation and Monitoring Proposal (MMP) for measuring effectiveness of riparian mitigation measures that incorporate percent canopy cover and percent effective shade requirements which measure the effectiveness of riparian creation and enhancement actions for mitigating impacts to streams.

Potentially Significant Impact - Impacts to Sensitive Plant Communities and Habitats (FEIS/EIR, § 3.7.1; SEIR, § 4.1.)

Impact Description:

Baker's meadowfoam is a federal species of concern, a state-listed rare species, and a California Native Plant Society (CNPS) List 1B species. Modified Alternative J1T would permanently impact approximately 33.5 acres of potentially suitable Baker's meadowfoam habitat. Additionally, the project may impact North Coast Semaphore

Grass, as discussed in the SEIR. North Coast semaphore grass (*Pleuropogon hooverianus*) is listed by the State of California as a threatened species and is a federal species of concern. It is also a CNPS List 1B.1 species (Plants Rare, Threatened, or Endangered in California or Elsewhere). An essential element of the Regional Water Board's Water Quality Control Plan (Basin Plan) is to adopt and ensure the protection of beneficial uses. While rare, threatened, and endangered species (RARE) is an existing beneficial use which the Regional Water Board is designated to protect, the primary mitigation authorities for special status plants are CDFG and USFWS. The FEIS/EIR and SEIR have identified these impacts as potentially significant.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have been required in, or incorporated into the project such that it would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board further finds that mitigation measures and conditions listed below (including those pertaining to impacts to wetlands and waters of the U.S.) are feasible to offset the impacts and are, therefore, incorporated as conditions of the Water Quality Certification and associated MRP.

Facts that Support the Finding:

FEIS/EIR Mitigation Measures:

BIO-11: Special Status Plants: Impacts to Baker's meadowfoam would be mitigated by off-site preservation of existing populations and habitat, as well as by creation/enhancement of new habitat for populations occurring on upland sites and on wetland sites. Portions of temporarily impacted Baker's meadowfoam habitat could be restored where feasible. Baker's meadowfoam habitats occurring within jurisdictional wetlands would be mitigated by a combination of creation/restoration at the same ratios as jurisdictional wetlands, and preservation. Baker's meadowfoam creation/restoration parameters would be based on specific hydrologic and soil conditions specified and described for the species in a formerly prepared study titled "Hydrologic and Soil-Geomorphic Conditions Associated with Baker's Meadowfoam in Little Lake Valley, Mendocino County, California" (Balance Hydrologics, Inc. 1993). The mitigation strategy allows for the creation, restoration, enhancement, protection and preservation of approximately 1,157 acres of potential Baker's meadowfoam habitat. The Baker's meadowfoam preserves would be maintained in perpetuity within Little Lake Valley.

SEIR Mitigation Measures:

Impacts to NCSG will be mitigated, as with Baker's meadowfoam, primarily through off-site preservation and enhancement of existing populations and habitat population and to protect and restore the remaining portions of the population within the right-of-way.

However, measures will also be taken to minimize direct and indirect impacts to the affected. Mitigation measures will be taken to minimize and fully mitigate project impacts. As part of avoidance and minimization measures, North Coast semaphore grass seed and rhizomes will be salvaged from the impact area prior to project construction and transplanted within the bypass alignment to an unaffected area. In addition, Caltrans is coordinating with CDFG and USFWS on a 2-year study to characterize hydrology (i.e., groundwater), soils (i.e., moisture and temperature), and cultural (i.e., land use) conditions at Arkelian, Frost, Goss, Lusher, and MGC Plasma North offsite mitigation parcels and the Huffman impact parcel for use in determining the potential to actively expand these occurrences. Data collected relating to the soil dry down curve at the occurrence sites will be of particular interest. Based on qualitative observations made during March 2010 abundance surveys, expansion at the occurrences seem possible as there appears to be unoccupied habitat available at the boundaries of the occurrences that could accommodate expansion. Land management practices, such as low intensity livestock grazing and limited mowing, also may allow expansion of North Coast semaphore grass.

As part of mitigation efforts, five existing North Coast semaphore grass populations in Little Lake Valley that occur at the Arkelian, Frost, Goss, Lusher, and MGC Plasma North offsite mitigation parcels will be placed in preserves as part of project mitigation. A total of 5.094 acres of occupied habitat has been identified at these preserves. The soil and hydrologic conditions favored by north coast semaphore grass are currently being evaluated to better understand the groundwater, soil moisture, soil temperature, soil profile, and soil density conditions under which NCSG grows. The evaluation is also intended to provide an understanding of the characteristics of areas adjacent to NCSG populations that may be used for implementing minimization measures (e.g., transplantation and seeding) for NCSG impacts at and for determining expansion potential at existing NCSG populations that will be preserved. Caltrans has developed a work plan in coordination with the CDFG and USFWS)to provide supplemental data for NCSG. During March 11—26, 2010, NCSG populations were identified, mapped, stratified (into stands), and surveyed for abundance. Simultaneously, 69 shallow soil pits were excavated within and adjacent to NCSG stands at five separate occurrences in Little Lake Valley as part of general habitat characterization efforts. Soil, hydrologic, and other site characteristics were documented at each of the pit sites. These data have been used to develop monitoring methods to collect more detailed soils and hydrology data. In addition to the soil and hydrologic data collected during general habitat characterization surveys, data were also collected on NCSG rooting depth. Knowledge of the root zone will help define the depth at which soil moisture and soil temperature monitoring sensors will be installed. The results of the detailed soil and hydrologic monitoring will be presented in annual monitoring reports to be submitted to the resource agencies for review in September 2010 and September 2011.

Potentially Significant Impact - Direct and Indirect Impacts to Special-Status Plants (FEIS/EIR, §§ 3.7.3, 3.17.2)

Impact Description:

The project study area for the Modified Alternative J1T alignment, as well as the designated borrow site at Oil Well Hill, together comprise 270 acres of land. Within the project study limits, permanent impacts to sensitive plant communities and habitats are estimated at approximately 108 acres, and temporary impacts are estimated at 28 acres. In considering the impacts and mitigation to various biological resources, it was recognized that some resources occur together as components of the same habitat or community (e.g., Baker's meadowfoam occurs within jurisdictional wetlands, oak trees occur within riparian zones, etc.).

The FEIS/EIR identifies these impacts as potentially significant.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have either been required in or incorporated into the project such that it would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board further finds that mitigation measures and conditions identified below are feasible to offset the impact and are, therefore, incorporated as conditions of the Water Quality Certification and associated MRP.

Facts that Support the Finding:

FEIS/EIR Mitigation Measures:

BIO-11: Special Status Plants: Modified Alternative J1T would temporarily and permanently affect two populations of Baker's meadowfoam, one in the central portion of the project (in the area of the Colli Ranch) and one in the northern portion of the project, in the vicinity of the Quail Meadows Interchange. The project would avoid most of the central population of Baker's meadowfoam, but would impact the majority of the northern population.

Impacts to Baker's meadowfoam plants would be mitigated by off-site preservation of existing populations and habitat, as well as by creation/enhancement of new habitat for populations occurring on upland sites and on wetland sites. Portions of temporarily impacted Baker's meadowfoam habitat could be restored where feasible. Baker's meadowfoam habitats occurring within jurisdictional wetlands would be mitigated by a combination of creation/restoration at the same ratios as jurisdictional wetlands, and preservation. Baker's meadowfoam creation/restoration parameters would be based on specific hydrologic and soil conditions specified and described for the species in a

formerly prepared study titled “Hydrologic and Soil-Geomorphic Conditions Associated with Baker’s Meadowfoam in Little Lake Valley, Mendocino County, California” (Balance Hydrologics, Inc. 1993). Baker’s meadowfoam preservation sites would be acquired within Little Lake Valley. Additionally, funds would be necessary in order to set up a long-term management and maintenance program. The Baker’s meadowfoam preserves would be maintained in perpetuity and their management could be transferred to CDFG or a mitigation bank (refer to the Conceptual Mitigation Plan, Appendix L).

Other Conditions:

Condition 10 of the Water Quality Certification requires Caltrans to adhere to the MRP issued by the Regional Water Board. The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. The baseline assessment of wetlands within the bypass alignment and the off-site mitigation parcels includes:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition]
- Absolute percent coverage of wetland plants
- Absolute percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- CRAM score.

Additionally, the mitigation measures identified above for impacts to wetlands are applicable to Baker’s Meadowfoam habitat which occurs within wetlands.
The information gathered above will provide Caltrans with data on the presence of Baker’s Meadowfoam and which locations it appears to be flourishing in.

Potentially Significant Impact – Direct and Indirect Impacts to Special Status Fish (FEIS/EIR, §§ 3.7.3, 3.17.2):

Impact Description:

Impacts to special status fish could result from sedimentation in streams, temperature increases due to loss of canopy, and/or potential noise affects related to pile driving activities near streams. The Modified Alternative J1T would require stream crossings that would directly affect the upper, middle, and lower reaches of Haehl Creek, as well as the lower reaches of Baechtel, Broaddus, Mill, and Upp creeks, which contain habitat for three listed salmonids (Northern California steelhead, Southern Oregon/Northern California coho salmon, and California Coastal chinook salmon). An essential element of the Regional Water Board’s Basin Plan is to adopt and ensure the protection of

beneficial uses. While rare, threatened, and endangered species (RARE) is an existing beneficial use which the Regional Water Board is designated to protect, the primary mitigation authorities for special status fish are CDFG and NMFS. The FEIS/EIR identifies these impacts as potentially significant.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have either been required in or incorporated into the project such that it would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board further finds that mitigation measures and conditions identified below are feasible to offset the impact and are, therefore, incorporated as conditions of the Water Quality Certification and associated MRP.

Facts that Support the Finding:

FEIS/EIR Mitigation Measures:

BIO-1: Mitigation and monitoring. The Modified Alternative J1T project will comply with terms and conditions provided by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), in their Biological Opinions. Caltrans will also comply with conditions of the permits issued by all of the resources agencies, and will implement mitigation and monitoring measures provided in the Final MMP, dated June 2010, includes measures that would compensate for impacts to wetlands and other waters; riparian woodlands, oak woodlands, listed salmonids; northern spotted owl and Pacific fisher; Baker's meadowfoam and non-listed special-status species.

BIO-2: Compensatory mitigation. Compensatory mitigation would include the creation, restoration, enhancement, and/or preservation of sensitive habitats affected by the project. The U.S. EPA, U.S. FWS, U.S. ACE, NMFS, CDFG, Mendocino County Resource Conservation District (MCRCD), Willits Environmental Center (WEC) and Regional Water Board collectively agreed to and developed an ecologically based watershed approach designed to ensure no net loss of ecological functions and values. The watershed approach would provide significant improvements to the ecological functions and values of wetlands off-site of the project, but still within the Little Lake Valley[2]. (The project is planned in the west-central portion of the Little Lake Valley.) The resource agencies agreed that the mitigation should be focused within Little Lake Valley because it hosts a variety of unique ecological features, including the presence of several rare, threatened, and endangered species (e.g. anadromous fish and Baker's

[2] During the Willits Bypass Mitigation Development Team meetings, it was collectively agreed between the U.S. EPA, U.S. ACE, U.S. FWS, CDFG, NMFS, WEC, Caltrans, and the Regional Water Board that the most appropriate use of the mitigation funds would be a watershed approach within Little Lake Valley. The resource agencies believe, that in this case, a watershed based approach will be superior to an approach relying on wetland creation/establishment ratios..

Meadowfoam). Caltrans proposed that 1,011.13 acres of existing wetlands would be enhanced and in combination with the 24.33 acres created and 53.44 acres preserved, for a total of 1,088.90 acres of wetlands secured in perpetuity. In addition, an off-site fish passage project at Ryan Creek will be implanted to provide salmonids with access to previously blocked habitat.

BIO-3: Avoidance and Minimization: During the final design phase of the Modified Alternative J1T project, Caltrans biologists, Caltrans design engineers, and the resource agencies have worked together on construction scenarios, BMPs, work windows and project monitoring strategy that will avoid and/or minimize impacts to sensitive biological resources.

BIO-4: Environmentally Sensitive Areas: Caltrans will establish and delineate Environmentally Sensitive Areas (ESAs) on project plans and specifications to protect sensitive biological resources adjacent to the construction corridor by prohibiting construction activities in those areas.

BIO-5: Training: Caltrans will develop and implement an environmental awareness and training program that informs the contractor and construction workers of the environmental regulations that Caltrans is committed to comply with, and measures established for the project to minimize and avoid sensitive habitats and species.

BIO-6: Monitoring: Qualified biologists would monitor construction activities in sensitive biological resource areas to ensure permit conditions and mitigation requirements are adhered to.

BIO-7: Construction in Streams: Caltrans will avoid working in live stream channels. Construction associated with stream crossings (bridges, viaduct and culvert) will conform to the work window of June 15 though October 15 of each year for work associated with bridge, viaduct, and culvert construction over salmonid bearing streams.

BIO-9: Riparian Woodland: Riparian woodlands within the project corridor are divided into three categories (Final MMP). Category I riparian woodlands are associated with salmonid bearing streams, and Category II and III riparian woodlands are other riparian woodlands that are not associated with salmonid streams.
Minimization measures that would occur during construction would include: removing the minimum amount of vegetation necessary; installing ESA fencing and enforcing protection of riparian vegetation located within established protected areas; implementation of appropriate BMP's; and pre-construction training sessions to inform contractors and construction workers of the status of sensitive habitats and special-status species and the requirements for avoidance of protected areas.

BIO-13: Wetlands and Other Waters: The goal is not net loss of wetland habitat functions and values. Mitigation would consist of a combination of measures, including the creation of wetlands and other waters, and the restoration, enhancement and

preservation of existing wetlands and other waters in Little Lake Valley. Wetland enhancement actions include: filling in man-made drainage ditches to increase the residence time of surface waters within the wetland area; implementing a grazing management plan to reduce the impacts from cattle; and removing invasive species to promote the health and natural recruitment of native wetland species. The enhancement of wetlands will be verified through a robust monitoring and reporting program (per Condition 10) that requires Caltrans to use the California Rapid Assessment Method (CRAM) for wetlands, as well as additional hydrology, vegetation, and surface water sampling and analysis methods to verify the enhancement of wetland functions and values. The mitigation site preservation and site protection instruments would be a combination of fee title purchase, conservation easement, or other deed restriction.

BIO-22: Aquatic Resources: In addition to requiring the contractor to prepare a Storm Water Pollution Prevention Plan (SWPPP), Caltrans will implement the following measures to minimize disturbances to aquatic resources. In addition, mitigation measures WQ-1 through WQ-3 and WQ-6 through WQ-8 will also reduce impacts to aquatic resources.

- All construction-related materials shall be stored in designated staging areas at least 150 feet from perennial waterways and drainages.

- Refueling and vehicle maintenance shall be performed at least 150 feet from creeks and other water bodies.

- Operation of heavy equipment shall be minimized in perennial creeks (to the greatest extent possible). If equipment must access perennial creeks, this will occur during the late summer months when the stream flows are low, or when no water is in the channels. If water is flowing, the channels will be appropriately dewatered.

- Temporary sedimentation barriers, such as gravel bags or siltation fencing, shall be installed to minimize the amount of silt entering the creeks and any ephemeral drainages with water present in the channel. The location of these barriers shall be determined by the resident engineer and environmental monitor, and shall be clearly marked in the field before construction activities begin.

- All imported fill material shall be clean and free of pollutants and shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low level contaminated solids as fill on-site shall be performed in accordance with all State and Federal policies and established guidelines and must be submitted to the Regional Water Board for review and concurrence.

- Only clean washed spawning gravel (0.5” – 4”) with a cleanliness value of at least 85, using the Cleanness Value Test Method for California Test No. 227 will be placed in the streams. Gravel bag fabric shall be nonwoven polypropylene geotextile (or comparable polymer) and shall conform to the following requirements: Mass per unit area, grams per square meter, min ASTM Designation: D 5261 – 270; Grab tensile strength (25-mm grip), kilonewtons, min. ASTM Designation: D4632* 0.89; Ultraviolet stability, percent tensile strength retained after 500 hours, ASTM Designation: D4355, xenon arc lamp method 70 or appropriate test method for specific polymer; Gravel bags shall be between 600 mm and 800 mm in length, and between 400 mm and 500 mm in width. Yarn used in construction of the gravel bags shall be as recommended by the manufacturer or bag supplier and shall be of a contrasting color. Gravel shall be between 10 mm and 20 mm in diameter, and shall be clean and free from clay balls, organic matter, and other deleterious materials. The opening of gravel-filled bags shall be secured to prevent gravel from escaping. Gravel-filled bags shall be between 13 kg and 22 kg in mass.

- Caltrans shall submit to the Regional Water Board in writing the name, qualifications, and contact information for the designated water quality monitor(s). The water quality monitor(s) shall be knowledgeable of and have experience with the Regional Water Board’s Basin Plan, which includes beneficial uses and water quality objectives, and surface water monitoring procedures, protocols, quality assurance, and quality control protocols. The water quality monitor(s) shall be responsible for monitoring project activities and/or channel- ground- or vegetation disturbing activities that result in or have the potential to result in a discharge to waters of the state. The water quality monitor shall make requests and provide recommendations to the Caltrans Resident Engineer, Construction Storm Water Coordinator, and Environmental Construction Liaison.

- Caltrans, in conjunction with the water quality monitor(s), shall establish effluent, upstream (background) and downstream monitoring locations to demonstrate compliance with all applicable water quality objectives as detailed in the Basin Plan. The downstream location shall be no more than 50 feet from the effluent location. Field measurements shall be taken from each location four times daily for flow, pH, temperature, dissolved oxygen, total dissolved solids, turbidity and specific conductance. In addition, visual observations shall be made four times daily and include the appearance of the discharge including color, turbidity, floating or suspended matter or debris, appearance of the receiving water at the point of discharge (occurrence of erosion and scouring, turbidity, solids deposition, unusual aquatic growth, etc), and observations about the receiving water, such as the presence of aquatic life. Measurements shall be collected from each sampling location four times daily while work is being conducted within waters of the state.

- Caltrans shall submit, subject to approval by the Regional Water Board staff, a dewatering and/or diversion plan that appropriately describe the dewatered or diverted areas and how those areas will be handled during construction. The diversion/dewatering plans shall be submitted no later than 30 days prior to conducting the proposed activity. Information submitted shall include the area or work to be diverted or dewatered and method of the proposed activity. All diversion or dewatering activities shall be designed as to minimize the impact to waters of the state and maintain natural flows upstream and downstream. All dewatering or diversion structures shall be installed in a manner that does not cause sedimentation, siltation or erosion upstream or downstream. All dewatering or diversion structures shall be removed immediately upon completion of project activities. The in-channel work within fish bearing streams will only be conducted between June 15th and October 15th. This project is not authorized to draft surface waters.

WQ-1: Soil Stabilization, Sediment Control, and Storm Water Pollution Prevention. To address potential water quality impacts during construction, Caltrans will require the contractor to use a combination of BMPs to control potential erosion and sedimentation from the project site. Caltrans has developed a suite of construction site BMPs that will be implemented on the proposed project. The construction site BMP manual can be downloaded at: http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm
The Plans, Specifications and Estimates (PS&E) developed for the project will require the contractor to prepare and implement SWPPP, and other project specific construction BMPs, which will effectively reduce potential pollutants of concern in storm water discharges. The SWPPP will be reviewed and approved by the Caltrans Resident Engineer to ensure all the necessary BMPs are incorporated. The SWPPP will also include a final Revegetation Plan to be implemented at the end of construction activities.

WQ-2: Oil, Grease, and Chemical Control: Caltrans SSPs will prohibit the contractor from discharging oils, greases, chemicals, or spillage of concrete and grout into receiving waters. For example, on this project, equipment operating in water bodies will be required to be steam cleaned prior to arrival on site, and be maintained in a clean condition during the length of activities.

WQ-3: Revegetation. Where vegetation along streams is removed or severely trimmed back, Caltrans will plant replacement vegetation for shading of creeks to reduce temperature related impacts to water quality. Mitigation measure BIO-9 will also reduce impacts associated with vegetation removal along riparian corridors.

WQ-6: Revegetation and Soil/Slope Stabilization. Following the construction process, the contractor will stabilize disturbed soil areas through permanent re-vegetation or other means. The Storm Water Quality Handbook, Project Planning and Design Guide (revised July 2005), provides detailed procedures for design of permanent slope stabilization controls, design pollution prevention, and permanent treatment BMPs. The procedures are intended to ensure that an appropriate design is developed that will

allow all finished slopes to achieve stabilization, even under severe conditions, and also provide erosion control BMPs at all point source discharges of storm water runoff. Treatment BMPs, such as biofiltration, will be incorporated where feasible.

WQ-8: Hazardous Waste Spill Control. As part of standard operation and maintenance procedures, Caltrans has developed a standard Hazardous Waste and Spill Response Plan (HW&SRP), which Caltrans will ensure is implemented during the project. These BMPs address water quality issues associated with accidental spills.

Other Conditions:

NMFS' Biological Opinion: The Biological Opinion issued by NMFS states that the project is not likely to jeopardize the continued existence of Northern California steelhead, Southern Oregon/Northern California coho salmon, and California Coastal Chinook salmon. Mitigation measures to reduce impacts to Special Status fish such as fish migration/fish passage and habitat creation and repair, as well as minimization measures for protecting aquatic resources are presented in Appendix A of the FIES/EIR and in Chapter 6 of the MMP. Construction and maintenance BMPs and compliance with the Caltrans statewide NPDES permit (Order No. 99 – 06 – DWQ) would also reduce impacts to fish species. Caltrans will implement the terms and conditions of the NMFS Biological Opinion, as well as mitigation measures and conditions listed above and below to minimize impacts to salmonids.

Fish Migration/Passage: Stabilization of both creek channels that pass through the interchange areas (Haehl and Upp Creeks) will consist of grade control structures located downstream of the culvert, at appropriate heights and intervals, for the distance necessary to stabilize the natural stream gradient. Fish passage design elements will comply with guidelines established by the NMFS and the CDFG. The removal of the Upcreek culvert along existing 101 and the stabilization of stream channel at the Haehl Creek interchange would likely reduce sediment input into the creeks as well as improve the beneficial use of the creeks for migration by anadromous salmonids. Regional Water Board staff recognizes that the Upp Creek and Haehl Creek interchanges were primarily designed with the bypass structure in mind; however, they will benefit salmonids because they were designed in accordance with NMFS and CDFG requirements and help fish passage and control sediment discharge. In addition, Caltrans worked closely with NMFS, CDFG, and Regional Water Board staff at these locations to ensure that all concerns raised by the agencies were addressed. As for the Ryan Creek passage barrier, Regional Water Board staff is satisfied that this is an appropriate mitigation for impacts to listed salmonids, especially when considered in conjunction with the cumulative benefits of additional barrier removal (located further upstream) which is being planned by Mendocino County.

Caltrans has designed the project to minimize the number of permanent structures that will be constructed in creek channels. Bent 24, which is associated with the viaduct structure at the confluence of Baechtel and Broaddus Creeks, will be the only

permanent bridge piling that will be constructed in the creek channel during Phase 1. All other creek crossings will consist of clear-span bridges, precluding the need for the construction and placement of permanent bridge piers within creek channels at these crossings. During construction of both project phases, a number of temporary piles to support trestles for the temporary access road and falsework construction also will be needed during project construction; however, these will be removed following construction of each phase of the project. The permanent and temporary piles that will be placed in the creek channels during construction of Phases 1 and 2 will not affect the migration pathway for upstream and downstream migrants.

In addition to enhancement and preservation of habitat on off-site mitigation parcels, Caltrans will implement stream restoration and fish passage improvements on Haehl and Upp Creeks where they cross the project footprint. Caltrans has also committed as part of its mitigation plan to providing the design for the North and South Fork locations of the Ryan Creek fish passage project, as well as constructing the South Fork location to mitigate impacts on salmonids and jurisdictional waters of the United States. These fish passage improvements on Ryan and Upp Creeks will improve access to upstream spawning and rearing habitat for coho and Chinook salmon and steelhead relative to current conditions. Improvements to fish passage will help offset the temporary effects associated with project construction by potentially increasing the productivity of listed salmonids in these creeks through increased spawning success.

There is general agreement among CDFG's Northern Region staff that Ryan Creek is a high priority for fish passage improvement. Ryan Creek was also identified as the Number 1 priority for passage improvement in Mendocino County in an inventory of road crossings on the State Highway system in Caltrans District 1 (Lang 2005). Ryan Creek ranked as the Number 2 priority within all of District 1. Ryan Creek is the first Outlet Creek tributary located immediately downstream from Little Lake Valley. Providing access to spawning and rearing habitat that is currently obstructed on Ryan Creek will directly benefit coho salmon populations in the Middle-Upper Eel River Recovery Unit and the Outlet Creek HSA. Identifying and treating passage barriers is consistent with the Recovery Strategy for California Coho Salmon and is identified as a Level D task (will directly contribute to recovery of coho salmon) for the Outlet Creek HSA.

Habitat Creation and Enhancement: Fish migration habitat will be further improved by the inclusion of approximately 1,700 linear feet of riparian plantings along the east bank of Baechtel Creek between where the viaduct would cross Baechtel Creek and where East Commercial Street currently crosses the creek, and along approximately 1,400 linear feet of the north bank of Mill Creek before Mill Creek passes under the Western Pacific railroad tracks. Approximately, six miles (measured along both sides of the stream banks) of riparian habitat will be created or enhanced along Category I, II, and III streams within the offsite mitigation parcels. There are long stream reaches along both Davis and Outlet Creeks that would benefit from riparian plantings. Consultations with Craig Martz and Scott Harris of CDFG and Tom Daugherty of NMFS on April 18, 2008,

indicated a preference for Category I riparian mitigation to occur on Outlet Creek, as it supports populations of all three listed fish species (salmonid and steelhead) potentially affected by the bypass project. Therefore, Caltrans has proposed approximately 10,000 linear feet of riparian vegetation to provide shade on Outlet Creek.

Additional mitigation includes restoration to areas along Outlet Creek and Berry that are undergoing bank erosion or that have large headcuts. These areas were identified in an erosion assessment conducted in May 2010. The erosion assessment consists of an inventory of sediment contributing sites within the mitigation parcels and a prioritization of those restoration efforts. The recommended treatments for these sites include bio-engineered bank stabilization efforts to reduce sediment input, reconnect the streams with their adjacent floodplains, and further improve fish habitat.

Monitoring of Pile Driving Noise near Streams*:* During pile driving activities below the top-of-bank and within 15 m (50 feet) of salmonid bearing streams, Caltrans will dewater the stream (including relocating fish), and a qualified fisheries biologist will monitor underwater noise levels both upstream and downstream of the dewatered area. If noise levels exceed 187 dB (sound exposure levels (SEL) or 208 dB peak, Caltrans will cease pile driving at this location and immediately contact NMFS to discuss further reasonable and prudent measures to minimize potential impacts to fish, which could include additional fish relocation and dewatering. Dewatering could be required for six weeks or more at some stream crossings as explained more fully in the NMFS' Biological Opinion.

Monitoring and Reporting Program: As stated in Section 1.0. of the MRP, Caltrans is required to conduct bioassessment (benthic macroinvertebrate sampling) as well as chemical, physical, and biological monitoring components. Chemical monitoring includes parameters such as dissolved oxygen, temperature, turbidity, total dissolved solids, oil and grease, and several other constituents. Physical monitoring includes hydrology, geomorphic conditions (i.e., cross sectional water depth, wetted channel width, bankfull width, substrate characteristics, canopy cover, gradient, sinuosity, large woody debris) and other parameters. Biological monitoring includes wetland plant coverage, invasive species coverage, riparian canopy coverage, benthic macro-invertebrates surveys, as well as other parameters. Regional Water Board staff worked closely with the U.S. EPA, U.S. ACE, and Caltrans to develop the MRP and to ensure that impacts to stream temperatures are fully mitigated.

Section 3.0. of the MRP details the schedule (including the frequency of monitoring), the locations, and the evaluation of data to adequate develop the short term work plans, grazing management plan, and mitigation success criteria. The requirements for baseline assessments, monitoring during construction, procedures for enhancement verification, and long term monitoring requirements as also detailed in Section 3.0.

Section 4.0. of the MRP requires that Caltrans monitor impacts to stream temperatures associated with the construction of the bypass and Section 5.0. requires Caltrans to

measure the success of the mitigation measures (revegetation) and ensure the project does not result in a significant increase in stream temperatures in the long term. Additionally, the Water Quality Certification and MRP require Caltrans to plant riparian vegetation in all areas within the bypass alignment and mitigation lands to provide the maximum site potential shade to streams within the project area. Section 3.0 of the MRP also require Caltrans to include additional and robust success criteria within the MMP for measuring effectiveness of riparian mitigation measures that incorporate percent canopy cover and percent effective shade requirements which measure the effectiveness of riparian creation and enhancement actions for mitigating impacts to streams.

Potentially Significant Impact - Direct and Indirect Impacts to Wetlands and Waters of the U.S. (FEIS/EIR, §§ 3.7.3, 3.17.2):

Impact Description:

The project will result in impacts to wetlands and surface waters within the Outlet Creek HSA, including Haehl Creek, Baechtel Creek, Broaddus Creek, Mill Creek, Outlet Creek, Upp Creek, Ryan Creek and two ponds (Rutledge and Niesen). Caltrans has determined that the project would directly impact a total of 89.27 acres of waters of the U.S[3]., including 83.77 acres of impacts to wetlands and 5.5 acres (12,416 linear feet) to streams and ponds also identified as waters of the U.S. The project would temporarily impact 29.88 acres of wetlands and 3.16 acres (9,255 linear feet) of streams and ponds identified as waters of the U.S[4]. In addition, the project would result in permanent impacts to 53.89 acres of wetlands and to 2.34 acres (3,161 linear feet) of streams and ponds that are waters of the U.S.[5] The FEIS/EIR has identified this as a potentially significant impact.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have been

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[3] Waters of the U.S. is defined in section 232.2 of Title 40 of the Code of Federal Regulations and includes "all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. All interstate waters, including interstate wetlands. All other waters including intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflates, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which would or could affect interstate or foreign commerce… and wetlands adjacent to waters (other than waters that are themselves wetlands) …"

[4] A temporary impact is the short term impact that occurs during the placement of fill within wetlands for access roads, or the removal of trees and vegetation along streams to construct false work and structures.

[5] A permanent impact is the placement of fill within areas for the purpose of a permanent structure such as the roadway embankments for the new highway, bridge footings, or culverts within streams.

required in, or incorporated into, the project that would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board further finds that mitigation measures and conditions identified below are feasible to offset the impact and are, therefore, incorporated as conditions of the Water Quality Certification and MRP.

Facts that Support the Finding:

FEIS/EIR Mitigation Measures:

BIO-1: Mitigation and monitoring: The Modified Alternative J1T project will comply with terms and conditions provided by the U.S. FWS and NMFS, in their Biological Opinions. Caltrans will also comply with conditions of the permits issued by all of the resources agencies, and will implement mitigation and monitoring measures provided in the MMP.

BIO-2: Compensatory Mitigation: Compensatory mitigation would include the creation, restoration, enhancement, and/or preservation of sensitive habitats affected by the project. Compensatory rations shall be developed through coordination with U.S. ACE, U.S. FWS, NMFS, U.S. EPA, and CDFG. See Other Conditions section below for more detailed information.

BIO-3: Avoidance and Minimization: During the final design phase of the Modified Alternative J1T project, Caltrans biologists, Caltrans design engineers, and resource agencies will work together on additional design solutions that will avoid or minimize impacts to sensitive biological resources.

BIO-4: Environmental Sensitive Area: Caltrans will establish and delineate ESAs on project plans and specifications to protect sensitive biological resources adjacent to the construction corridor by prohibiting construction activities in those areas.

BIO-5: Training: Caltrans will develop and implement an environmental awareness and training program that informs the contractor and construction workers of the environmental regulations that Caltrans is committed to comply with, and measures established for the project to minimize and avoid sensitive habitats and species.

BIO-6: Monitoring: Qualified biologists and water quality monitors would monitor construction activities in sensitive biological resource areas to ensure permit conditions and mitigation requirements are adhered to.

BIO-7: Construction In Streams: Caltrans would avoid working in live stream channels to the extent feasible. Construction associated with stream crossings (bridges, viaduct and culvert) would conform to the work window of June 15 though October 15 of each year for work associated with bridge, viaduct, and culvert construction over salmonid bearing streams.

BIO-13: Wetlands and Other Waters: Caltrans will mitigate for impacts to wetlands and other waters of the U.S. by implementing the mitigation measures that are set forth in the Final MMP, The mitigation will consist of a combination of measures, including the creation of wetlands and other waters, and the restoration, enhancement and preservation of existing wetlands and other waters in Little Lake Valley.

FP-1: Structure Design: According to FEMA, the floodway is "the area of the floodplain that should be reserved (kept free of obstructions) to allow floodwaters to move downstream." For each valley alternative, the Floodway Viaduct (bridge) spans the floodway. The only encroachments in the floodway are the columns supporting the structure. In addition, the structure designs have relatively long spans, in the range of 30 m (100 ft). These structure design features limit the impacts on the floodplain by minimizing the actual footprint of the impacts and obstructions to flow.

FP-2: Drainage Philosophy: The valley alternatives include equalizing culverts at periodic points along the embankments, which should minimize the redirection of flows, maintaining the existing flood patterns. The culverts will not be included, however, if detailed hydraulic studies indicate the culverts would cause other problems with flood patterns.

FP-3: Design Cross-Sections: The cross sectional design of the facility, the side slopes, median, pavement widths, and so forth, has been established to limit impacts to floodplains as well as other resources. The median width, at 13.8 m (45 ft), is 4.8 m (16 ft) less than Caltrans' current design standard. This median width reduces the footprint of impact along the entire alignment, including the floodplain. Sideslopes are the slopes connecting the roadbed with the existing ground. When the embankment is low, the sideslopes can be constructed at relatively low angles without extending an unreasonable distance from the roadbed. But as embankments increase in height, sideslopes constructed at the same angles would cover much wider areas and add to the volume of earth to be placed. To reduce the earthwork and footprint of higher embankments, sideslopes are constructed at steeper angles. In the floodplain, the higher embankments occur at bridge approaches, and the steeper sideslopes constructed in connection with these higher embankments limit the impacted areas.

FP-4: Geometric Design: The use of tight diamond interchanges rather than spread diamonds reduces the footprint of impacts on the floodplain.

Other Conditions:

Wetlands and Other Waters: Wetlands subject to Regional Water Board jurisdiction would be permanently and temporarily affected by the project. Other waters (streams and ponds) would also be permanently and temporarily affected by the project, and consist of: 1) two ponds (one on the Colli Ranch and one in the Niesen Ranch); 2) approximately 2,500 feet of an ephemeral stream south of East Hill Road; 3) the culvert crossing over Upp Creek at the north end of the project corridor; and 4) potential temporary dewatering of perennial streams (if needed) to minimize pile driving-related noise impacts to listed salmonids.

Compensatory Mitigation: Compensatory mitigation would include the creation, restoration, enhancement, and/or preservation of sensitive habitats affected by the project. The Water Quality Certification by the Regional Water Board will be conditioned upon Caltrans obtaining control of all of the area necessary for the creation of the 24 acres of wetlands, as proposed in its mitigation and monitoring proposal. Off-site mitigation actions for wetlands creation will require site preparation, including grading uplands and modifying local hydrology; seeding graded areas; planting wetlands species; and monitoring for successful wetland establishment.

After the creation of approximately 24 acres of wetlands, the project would still result in a loss of 29 acres of wetlands. After several years of meetings and planning with Caltrans, the U.S. EPA, U.S. FWS, U.S. ACE, NMFS, CDFG, MCRCD, WEC and Regional Water Board collectively agreed to an ecologically designed watershed approach to mitigate for the loss of 29 acres of wetlands. The watershed approach would involve providing a significant improvement to the ecological functions and values of wetlands off-site of the project, but still within the Little Lake Valley. (The project is planned in the west-central portion of the Little Lake Valley.) The resource agencies collectively agreed that the mitigation should be focused within Little Lake Valley, because it hosts a variety of unique ecological features, including the presence of several rare, threatened, and endangered species (e.g. anadromous fish and Baker's Meadowfoam).

This watershed approach mitigation strategy would combine habitat creation, restoration, enhancement, and preservation, which is consistent with the U.S. EPA and U.S. ACE new Compensatory Mitigation Rule released on April 10, 2008. The watershed approach is discussed in the Code of Federal Regulations [33 CFR Part 332.3(h)] which details the applicability, considerations, information needed, and watershed scale. As stated in the Federal Mitigation Rule, "If a functional or condition assessment of other suitable metric is not used, a minimum of one-to-one acreage or linear foot compensation ratio must be used." With Caltrans unable to provide the required acreage for wetlands establishment (creation) they proposed mitigating through the watershed approach. Approximately 1,011 acres of existing wetlands would be enhanced and in combination with the 24 acres created, and the 54 acres preserved, for a total of approximately 1,088 acres of wetlands to be secured and managed in perpetuity. Wetland enhancement actions include: filling in man-made drainage ditches to increase the residence time of surface waters within the wetland area; implementing a grazing management plan to reduce the impacts from cattle; and removing invasive species to promote the health and natural recruitment of native wetland species. The mitigation site preservation and site protection instruments would be a combination of fee title purchase, conservation easement, or other deed restriction. The Water Quality Certification (Condition 8) will be conditioned upon Caltrans obtaining control of all of the area necessary for the enhancement and preservation of wetlands, as identified in their mitigation plan.

The Federal Mitigation Rule (33 CFR Part 332.3) discusses the considerations for the watershed mitigation approach which include water quality and watershed impairments. The Eel River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2004, the U.S. EPA established sediment and temperature total maximum daily loads (TMDLs) for the Upper Main Eel River and tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury). Therefore, to fully develop a watershed approach the mitigation must include a nexus to address the temperature and sediments impairments.

The nexus relates how the proposed mitigation will implement additional measures to reduce stream temperatures and excessive sediment inputs into the watershed. For sediment, Caltrans has prepared an assessment of all the erosion sites located within the off-site mitigation lands, which includes the inventory, prescription, and prioritization of restoration actions that will reduce erosion and sediment delivery within the watershed. In addition, the bypass structure has been designed reduce erosion and sediment delivery to the maximum extent practicable (MEP). For temperature impairment, the most practical way to reduce stream temperatures is to provide riparian vegetation in all areas feasible within the project limits, including bypass alignment and off-site mitigation lands (maximum site potential shade). In addition, baseline surveys will be conducted to find all areas that benefit from riparian plantings to achieve maximum site potential shade, and percent effective shade (shade on water). Additionally, the current land management practices of stream alteration and cattle grazing have potentially negative side effects on water. Therefore, the proposed grazing management plan, which is geared towards the enhancement and protection of natural resources, will be implemented to improve the overall health of the watershed.

Monitoring and Reporting Program: To compensate for the impacts to wetlands Caltrans proposes a watershed approach to achieve an increase in functions and values within the selected mitigation area. The MRP is intended to provide the data necessary to validate that proposal. The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. It is necessary to establish baseline conditions of surface waters to verify the establishment and enhancement of wetlands, riparian areas, and waters of the U.S. and State within the mitigation lands.

The primary objectives of the MRP include, but are not limited to:

A. Assessing the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
B. Assessing the overall health and evaluating trends in receiving water quality;
C. Assessing the potential biological, chemical, physical impacts, both during and after construction, of the bypass alignment;

D. Determining and revising site specific performance standards and success criteria for the biological, chemical, and physical environmental characteristics within the bypass alignment, and within the mitigation lands;
E. Evaluating the effectiveness of BMPs, mitigation measures, and avoidance measures;
F. Evaluating activities that results in or may result in violations of MRP and the Water Quality Certification that may warrant additional BMPs or stop work orders;
G. Identifying sources of pollutants;
H. Assessing compliance with water quality objectives and TMDLs;
I. Measuring and assessing the reductions or prevention in pollutant loads; and
J. Verifying and successful repair within the bypass alignment and enhancement of the mitigation lands.

The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. The baseline assessment of wetlands within the bypass alignment and the off-site mitigation parcels includes:

- Hydrology [i.e., ground water level fluctuation (discharge and recharge), inundation (depth, duration and frequency), soil saturation, drainage patterns, erosion and deposition]
- Absolute percent coverage of wetland plants
- Absolute percent cover of native plant species
- Species richness
- Absolute percent coverage of invasive species
- CRAM score.

Potentially Significant Impact-Impacts to Special-Status Wildlife (FEIS/EIR, § 3.7.5)

Impact Description:

Construction of Modified Alternative J1T could affect Northern spotted owl (a federally listed threatened species) by removing suitable habitat that could be used by this species at the optional borrow site (Oil Well Hill). Using Oil Well Hill for borrow material could also affect Pacific fisher (a federal candidate for listing as threatened or endangered), as well as red tree vole (a non-listed state special-status species), by removing suitable habitat.

Modified Alternative J1T would remove riparian woodland and scrub habitat (within all three categories) along streams that provide nesting and foraging habitat for white-tailed kite, a California fully protected species, and Cooper's hawk, yellow-breasted chat, and California yellow warbler, which are California special-status species. In addition,

Modified J1T would remove oak woodland that could provide nesting and foraging habitat for white-tailed kite, Coopers hawk, and other raptors.

Construction of the bridges and viaducts for Modified Alternative J1T could affect Northwestern pond turtle and foothill yellow-legged frog that could be present in the streams within the project corridor.

The FEIS/EIR identifies these impacts as potentially significant.

Finding:

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Regional Water Board finds that changes or alterations have either been required in or incorporated into the project such that it would avoid or substantially lessen the significant environmental effect to a less than significant level. The Regional Water Board further finds that mitigation measures and conditions identified below are feasible to offset the impact and are, therefore, incorporated as conditions of the Water Quality Certification and associated MRP.

Facts that Support the Finding:

FEIS/EIR Mitigation Measures:

BIO-1: Mitigation and monitoring: The Modified Alternative J1T project will comply with terms and conditions provided by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), in their Biological Opinions. Caltrans will also comply with conditions of the permits issued by all of the resources agencies, and will implement mitigation and monitoring measures provided in the Final MMP, dated June 2010, includes measures that would compensate for impacts to wetlands and other waters; riparian woodlands, oak woodlands, listed salmonids; northern spotted owl and Pacific fisher; Baker's meadowfoam and non-listed special-status species.

BIO-2: Compensatory mitigation: Compensatory mitigation would include the creation, restoration, enhancement, and/or preservation of sensitive habitats affected by the project. The U.S. EPA, U.S. FWS, U.S. ACE, NMFS, CDFG, MCRCD, WEC and Regional Water Board collectively agreed to and developed an ecologically based watershed approach designed to ensure no net loss of ecological functions and values. The watershed approach would provide significant improvements to the ecological functions and values of wetlands off-site of the project, but still within the Little Lake Valley[6]. (The project is planned in the west-central portion of the Little Lake Valley.)

[6] During the Willits Bypass Mitigation Development Team meetings, it was collectively agreed between the U.S. EPA, U.S. ACE, U.S. FWS, CDFG, NMFS, WEC, Caltrans, and the Regional Water Board that the most appropriate use of the mitigation funds would be a watershed approach within Little Lake Valley. The resource agencies believe, that in this case, a watershed based approach will be superior to an approach relying on wetland creation/establishment ratios..

The resource agencies agreed that the mitigation should be focused within Little Lake Valley because it hosts a variety of unique ecological features, including the presence of several rare, threatened, and endangered species (e.g. anadromous fish and Baker's Meadowfoam). Caltrans proposed that 1,011.13 acres of existing wetlands would be enhanced and in combination with the 24.33 acres created and 53.44 acres preserved, for a total of 1,088.90 acres of wetlands secured in perpetuity. In addition, an off-site fish passage project at Ryan Creek will be implanted to provide salmonids with access to previously blocked habitat.

BIO-3: Avoidance and Minimization: During the final design phase of the Modified Alternative J1T project, Caltrans biologists, Caltrans design engineers, and the resource agencies have worked together on construction scenarios, BMPs, work windows and project monitoring strategy that will avoid and/or minimize impacts to sensitive biological resources.

BIO-4: Environmentally Sensitive Areas: Caltrans will establish and delineate Environmentally Sensitive Areas (ESAs) on project plans and specifications to protect sensitive biological resources adjacent to the construction corridor by prohibiting construction activities in those areas.

BIO-5: Training: Caltrans will develop and implement an environmental awareness and training program that informs the contractor and construction workers of the environmental regulations that Caltrans is committed to comply with, and measures established for the project to minimize and avoid sensitive habitats and species.

BIO-6: Monitoring: Qualified biologists would monitor construction activities in sensitive biological resource areas to ensure permit conditions and mitigation requirements are adhered to.

BIO-8: Oak Woodland: Oak woodland occurring in the project corridor consists of valley oak woodland, Oregon white oak woodland, and black oak woodland, which would be permanently affected by the Modified Alternative J1T.
Minimization efforts during construction would consist of the removal of only the minimum number of trees necessary to allow for efficient project construction. Environmentally Sensitive Area (ESA) fencing would be installed around oak woodlands adjacent to the work areas. Any encroachment beyond the ESA fencing during construction (including driving, material or equipment storage and vehicle parking) would be prohibited. The ESA fencing would be accurately depicted on the final contract drawings. Compensation for the permanent loss of oak woodland would consist of in-kind creation/restoration, enhancement and preservation of oak woodlands on newly acquired parcels. These parcels would be purchased in fee or by a conservation easement and preserved in perpetuity. On sites to where creation/restoration or enhancement is to occur, oak trees would be initially planted in these areas at the ratio of five new saplings for each oak lost with the goal of three of them surviving after a ten-year monitoring period. Other compensation options may include: 1) a monetary

contribution to the California Oak Woodlands Conservation Fund, administered by the State Wildlife Conservation Board for the purpose of purchasing oak woodland conservation easements, or; 2), if there is an established CDFG oak woodland mitigation bank, the mitigation bank could be used to fulfill the off-site compensation requirements (refer to Conceptual Mitigation Plan; Appendix L).

BIO-14: Migratory Bird Treaty Act: To comply with the provisions of the Migratory Bird Treaty Act, vegetation required for removal will be removed or trimmed during the fall and/or winter months, to the extent possible, to avoid impacts to nesting birds. If vegetation cannot be removed during the non-breeding season, Caltrans will arrange to have a qualified biologist conduct preconstruction surveys of impact areas to check for nesting activity of all bird species. If nesting activity is detected, Caltrans will, if possible, establish a buffer around the nest(s). The buffer width would be determined through consultation with USFWS and CDFG. The buffer will be maintained and construction activities will avoid nest sites until the biologist determines that the young have fledged or nesting activity has ceased.

BIO-16 (revised): Northern Spotted Owl Habitat at Oil Well Hill. Excavation at the designated borrow site at Oil Well Hill could affect a maximum of 40 acres of Northern spotted owl (NSO) foraging and dispersal habitat. Caltrans will conduct additional pre-construction protocol-level surveys to determine the status of NSO in the vicinity of the Oil Well Hill borrow site. If NSO is found nesting within 1.3 miles of the borrow site, Caltrans/FHWA will consult with the USFWS (refer to USFWS Biological Opinion (BO) for NSO, Appendix D). Caltrans/FHWA will document the results of all protocol surveys conducted for Northern spotted owls. Caltrans will implement mitigation measures provided in the USFWS BO for NSO, which include:

BIO-16A: All large trees that can reasonably be avoided at Oil Well Hill will be protected.
BIO-16B: Vegetation removal at Oil Well Hill will occur during the non-breeding season (September 15 – February 1), to the extent feasible, to minimize potential impacts to spotted owls. Vegetation will be removed incrementally (i.e., only on those portions of the site that are needed for borrow material), rather than removing all vegetation on the approximately 16 ha (40 ac) site prior to excavation.
BIO-16C: Planting the same tree species that occurred at the borrow site following excavation, if feasible, could restore vegetation at Oil Well Hill.

BIO-17: This mitigation measure is retained, but has been renamed BIO-16D (see above).
BIO-18: Non-listed Special-Status Wildlife Species: If non-listed special-status wildlife species are found nesting on or near the project site, including California yellow warbler, yellow-breasted chat, and raptors, Caltrans will establish buffers around each nest. The buffer width will be determined through consultation with CDFG. The buffer shall be maintained and construction activities shall avoid nest sites until the Caltrans biologist determines that the young have fledged or nesting activity has ceased.

For white-tailed kites and other raptors, Caltrans shall conduct a pre-construction survey during the spring or early summer (April-early July) to determine whether nesting raptors (e.g., white-tailed kites, Cooper's hawks, red-tailed hawks, red-shouldered hawks) are present on or within 0.40 km (0.25 mi) of the selected alternative. If the survey detects nesting raptors on or within 0.40 km (0.25 mi) of the selected alternative, Caltrans will maintain buffer areas and seasonal construction constraints (e.g., no work during active nesting periods) in coordination with USFWS and CDFG.

BIO-19: White-tailed kite and other raptors: Mitigation Measure BIO-19 is retained, but has been incorporated as part of BIO-18 (above). Mitigation measures for all non-listed special-status are now discussed under BIO-18.
BIO-20: Yellow-breasted chat: Mitigation Measure BIO-20 is retained, but has been incorporated as part of BIO-18 (above). Mitigation measures for all non-listed special-status are now discussed under BIO-18.
BIO-21: Wildlife Crossings: The proposed viaduct and bridge crossings would provide access for wildlife to cross under the proposed alignment. Caltrans could construct additional wildlife under-crossings, if feasible, that would be suitable for use by deer and other wildlife species. If the construction of other wildlife crossings is feasible, the location, number and design of the under-crossings would be determined through consultation with CDFG.

Other Conditions:

The project will comply with terms and conditions listed in the USFWS Biological Opinion to minimize impacts. In addition, all appropriate BMPs will be implemented to minimize impacts to Northern spotted owl and other sensitive resources in the area.

Measures implemented for salmonids would also minimize impacts to northwestern pond turtle and foothill yellow-legged frog.

Monitoring and Reporting Program: The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands. It is necessary to establish baseline conditions of surface waters to verify the establishment and enhancement of wetlands, riparian areas, and waters of the U.S. and State within the mitigation lands.

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F. Evaluating activities that results in or may result in violations of MRP and the Water Quality Certification that may warrant additional BMPs or stop work orders;
G. Identifying sources of pollutants;
H. Assessing compliance with water quality objectives and TMDLs;
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The MRP is designed to collect data and provide reports that assess the biological, chemical, physical characteristics and conditions of resources within the jurisdiction of the Regional Water Board for both the bypass alignment and the associated mitigation lands.